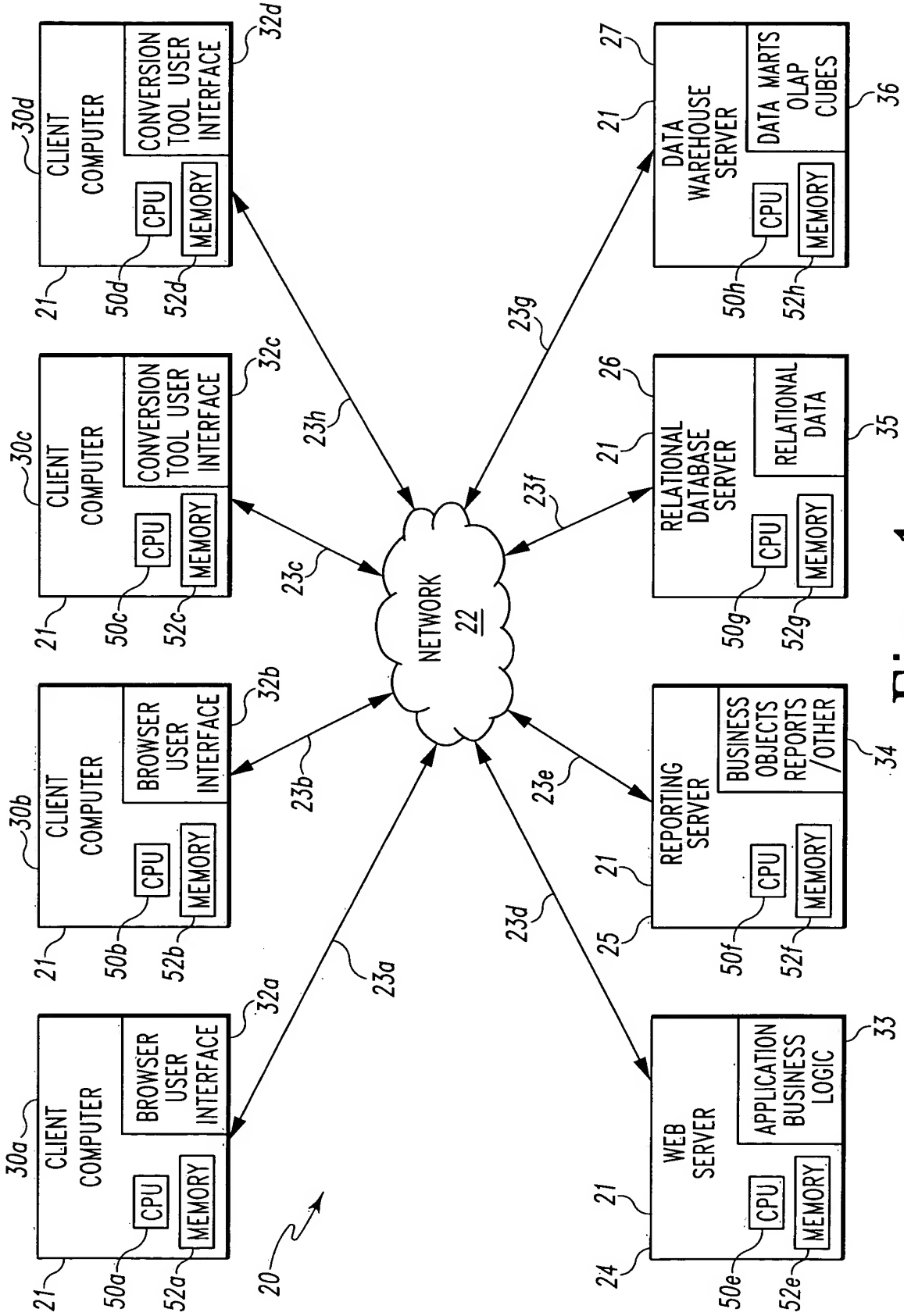

NETWORK
22
20
CLIENT COMPUTER
30a
BROWSER USER INTERFACE
32a
CPU
MEMORY
21
50a
52a
CLIENT COMPUTER
30b
BROWSER USER INTERFACE
32b
CPU
MEMORY
21
50b
52b
CLIENT COMPUTER
30c
CONVERSION TOOL USER INTERFACE
32c
CPU
MEMORY
21
50c
52c
CLIENT COMPUTER
30d
CONVERSION TOOL USER INTERFACE
32d
CPU
MEMORY
21
50d
52d
WEB SERVER
APPLICATION BUSINESS LOGIC
33
CPU
MEMORY
21
24
50e
52e
REPORTING SERVER
BUSINESS OBJECTS REPORTS /OTHER
34
CPU
MEMORY
21
25
50f
52f
RELATIONAL DATABASE SERVER
RELATIONAL DATA
35
CPU
MEMORY
21
26
50g
52g
DATA WAREHOUSE SERVER
DATA MARTS OLAP CUBES
36
CPU
MEMORY
21
27
50h
52h
23a
23b
23c
23d
23e
23f
23g
23h

Fig. 1

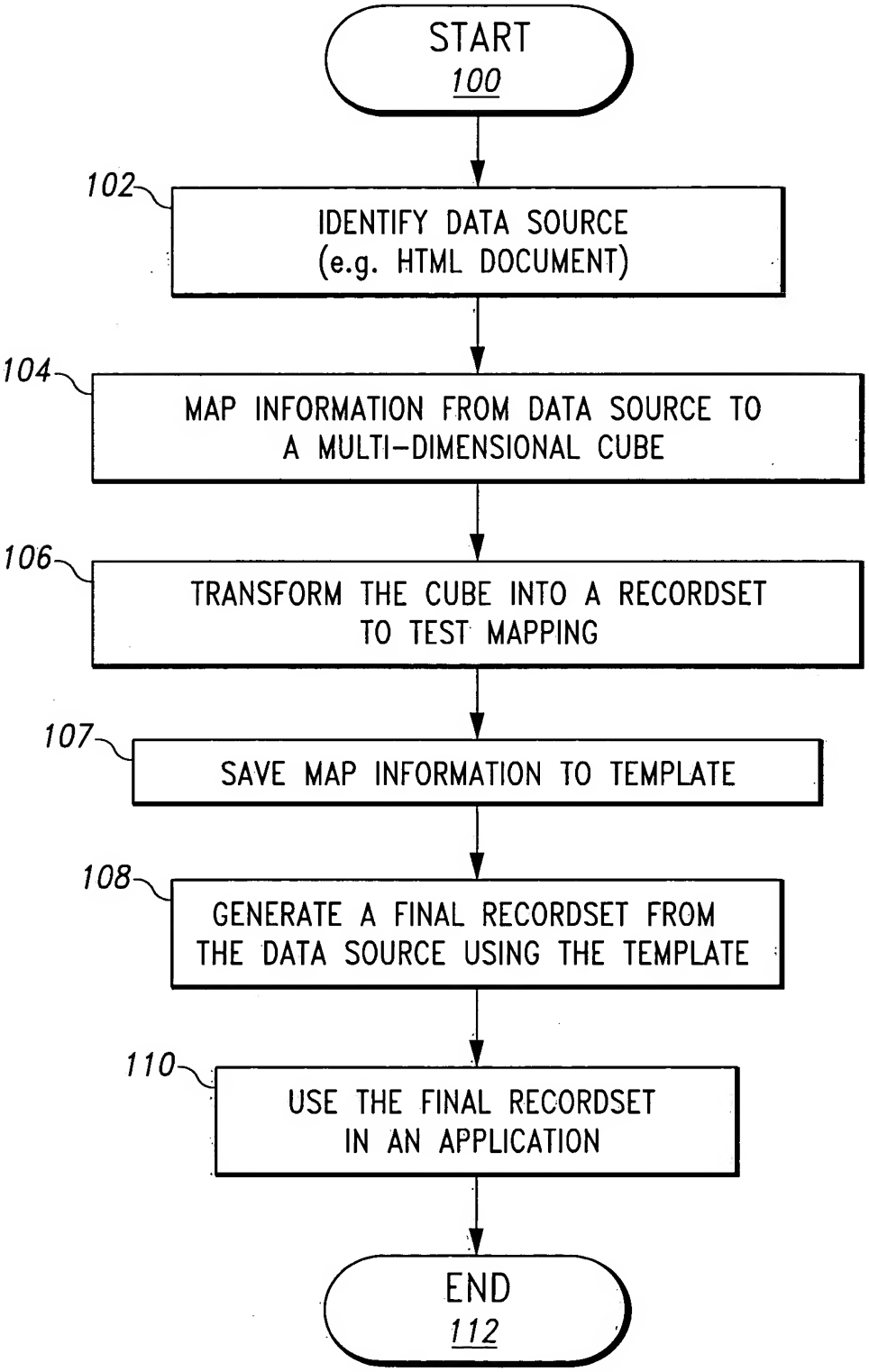

START
100
102
IDENTIFY DATA SOURCE
(e.g. HTML DOCUMENT)
104
MAP INFORMATION FROM DATA SOURCE TO
A MULTI-DIMENSIONAL CUBE
106
TRANSFORM THE CUBE INTO A RECORDSET
TO TEST MAPPING
107
SAVE MAP INFORMATION TO TEMPLATE
108
GENERATE A FINAL RECORDSET FROM
THE DATA SOURCE USING THE TEMPLATE
110
USE THE FINAL RECORDSET
IN AN APPLICATION
END
112

Fig. 2

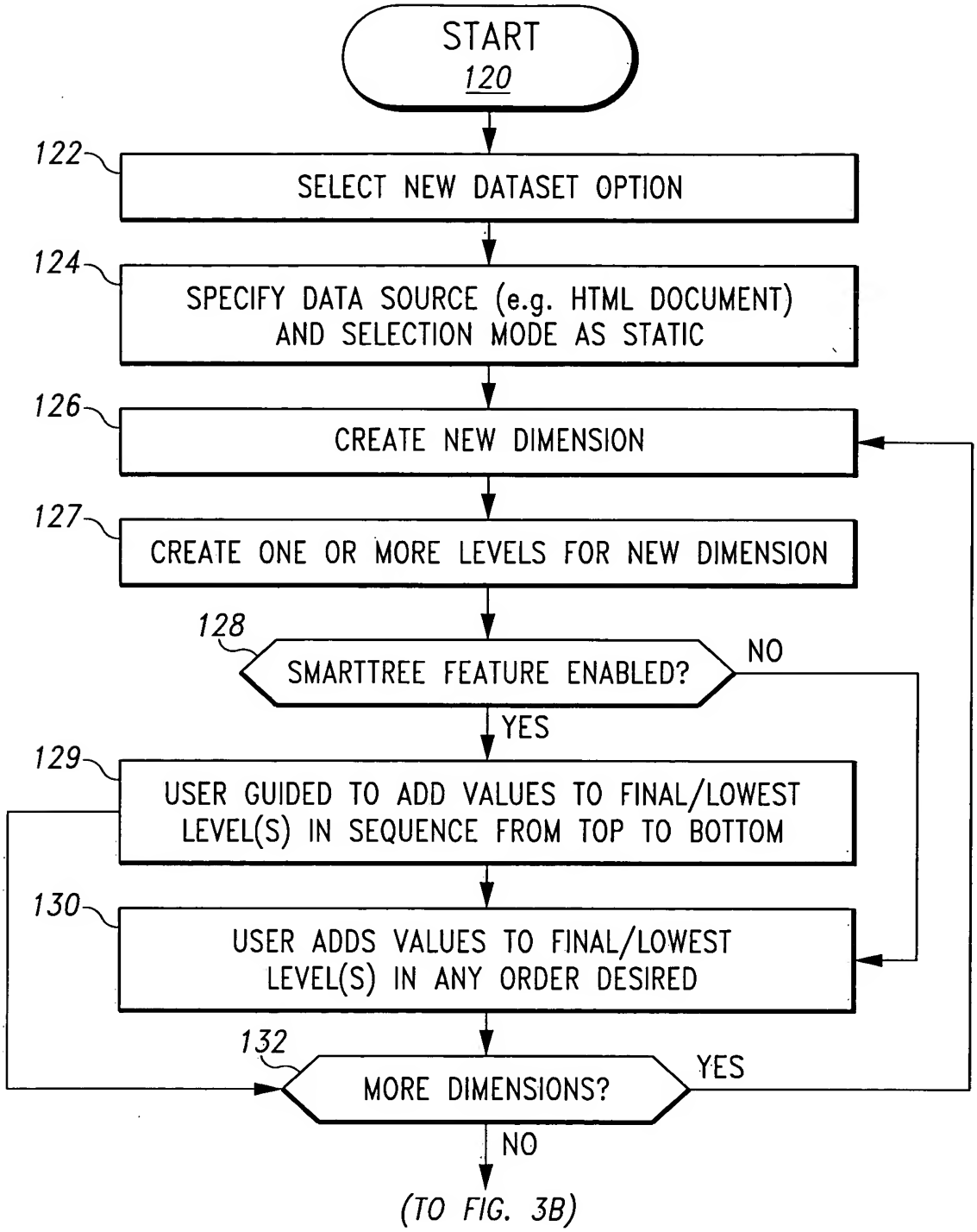

START
120
122
SELECT NEW DATASET OPTION
124
SPECIFY DATA SOURCE (e.g. HTML DOCUMENT)
AND SELECTION MODE AS STATIC
126
CREATE NEW DIMENSION
127
CREATE ONE OR MORE LEVELS FOR NEW DIMENSION
128
SMARTTREE FEATURE ENABLED?
NO
YES
129
USER GUIDED TO ADD VALUES TO FINAL/LOWEST
LEVEL(S) IN SEQUENCE FROM TOP TO BOTTOM
130
USER ADDS VALUES TO FINAL/LOWEST
LEVEL(S) IN ANY ORDER DESIRED
132
MORE DIMENSIONS?
YES
NO
(TO FIG. 3B)

Fig. 3A

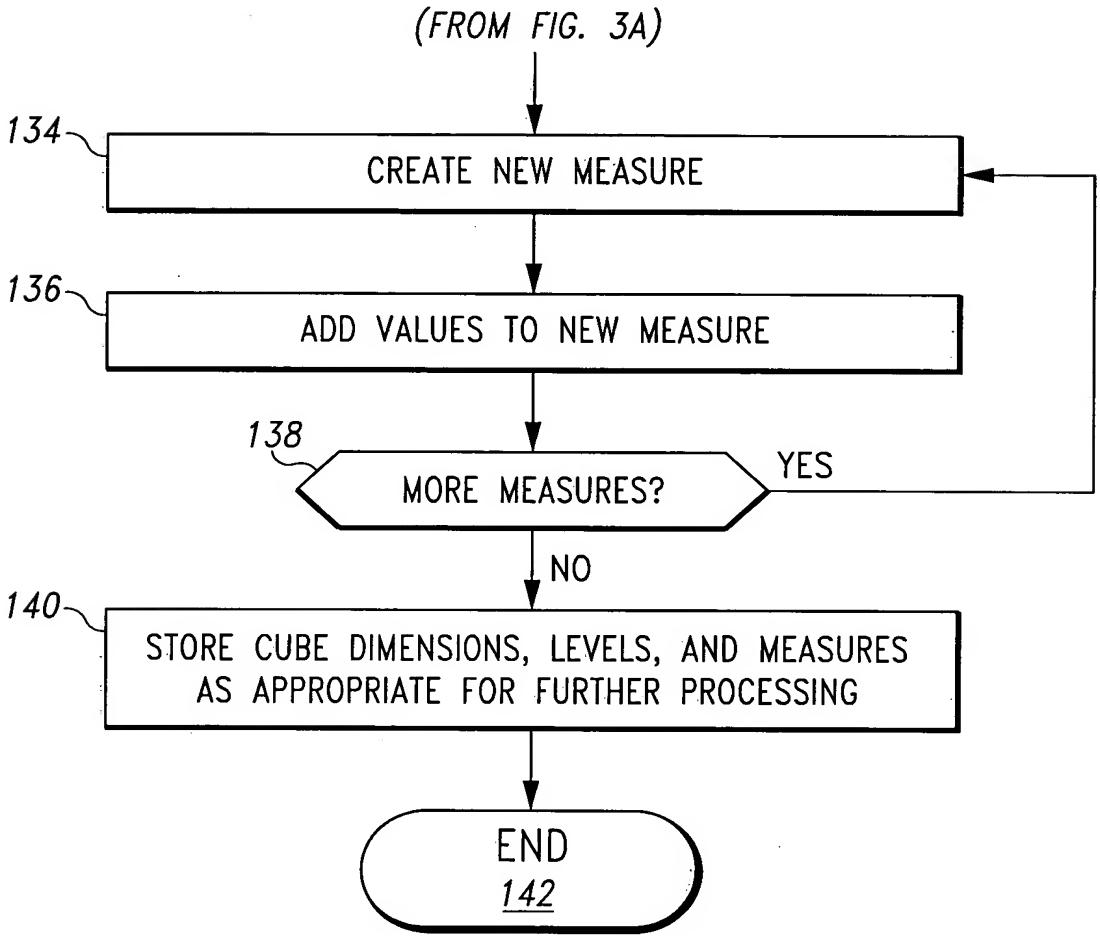

(FROM FIG. 3A)
134
CREATE NEW MEASURE
136
ADD VALUES TO NEW MEASURE
138
MORE MEASURES?
YES
NO
140
STORE CUBE DIMENSIONS, LEVELS, AND MEASURES AS APPROPRIATE FOR FURTHER PROCESSING
END
142

Fig. 3B

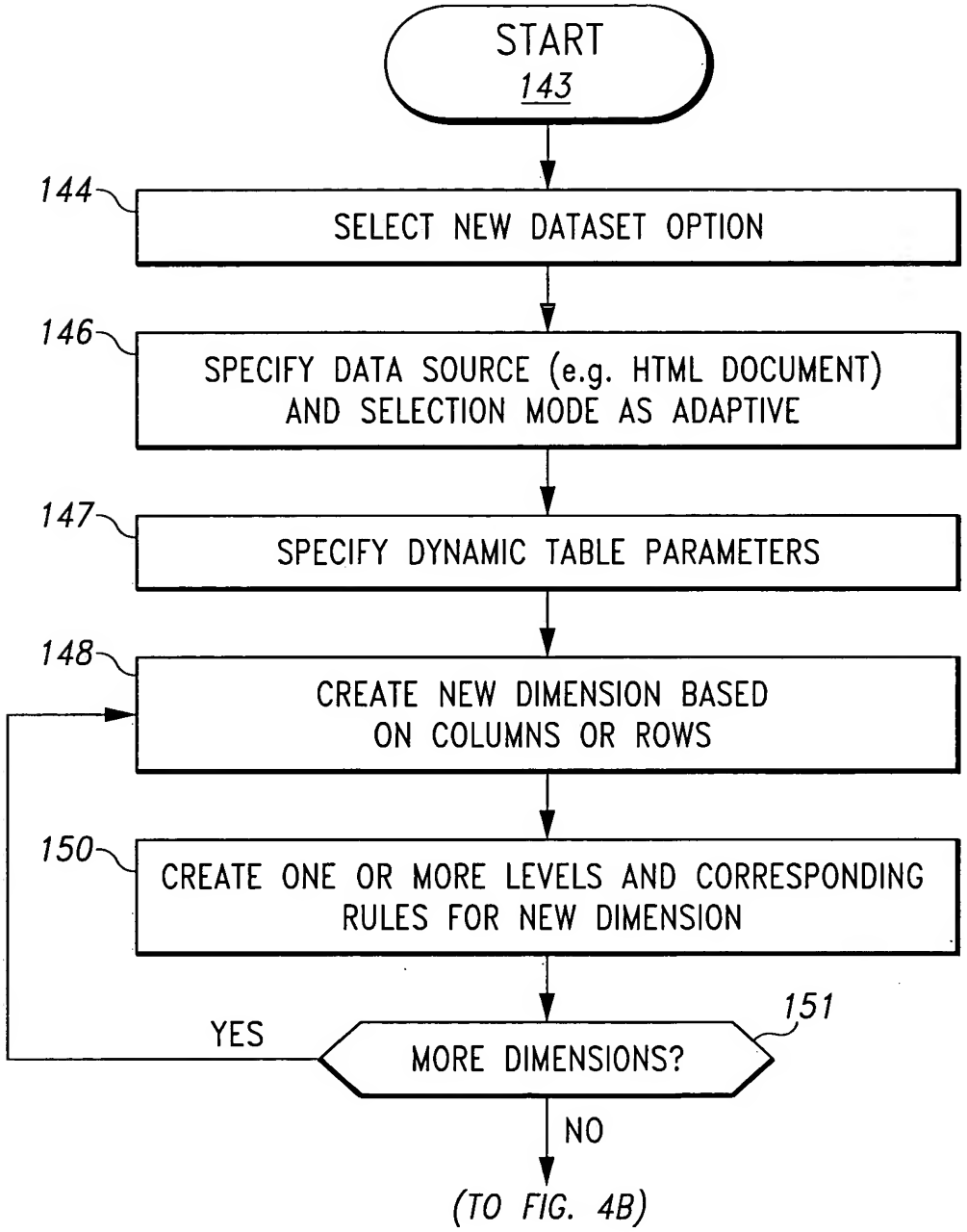

START
143
144
SELECT NEW DATASET OPTION
146
SPECIFY DATA SOURCE (e.g. HTML DOCUMENT)
AND SELECTION MODE AS ADAPTIVE
147
SPECIFY DYNAMIC TABLE PARAMETERS
148
CREATE NEW DIMENSION BASED
ON COLUMNS OR ROWS
150
CREATE ONE OR MORE LEVELS AND CORRESPONDING
RULES FOR NEW DIMENSION
151
MORE DIMENSIONS?
YES
NO
(TO FIG. 4B)

Fig. 4A

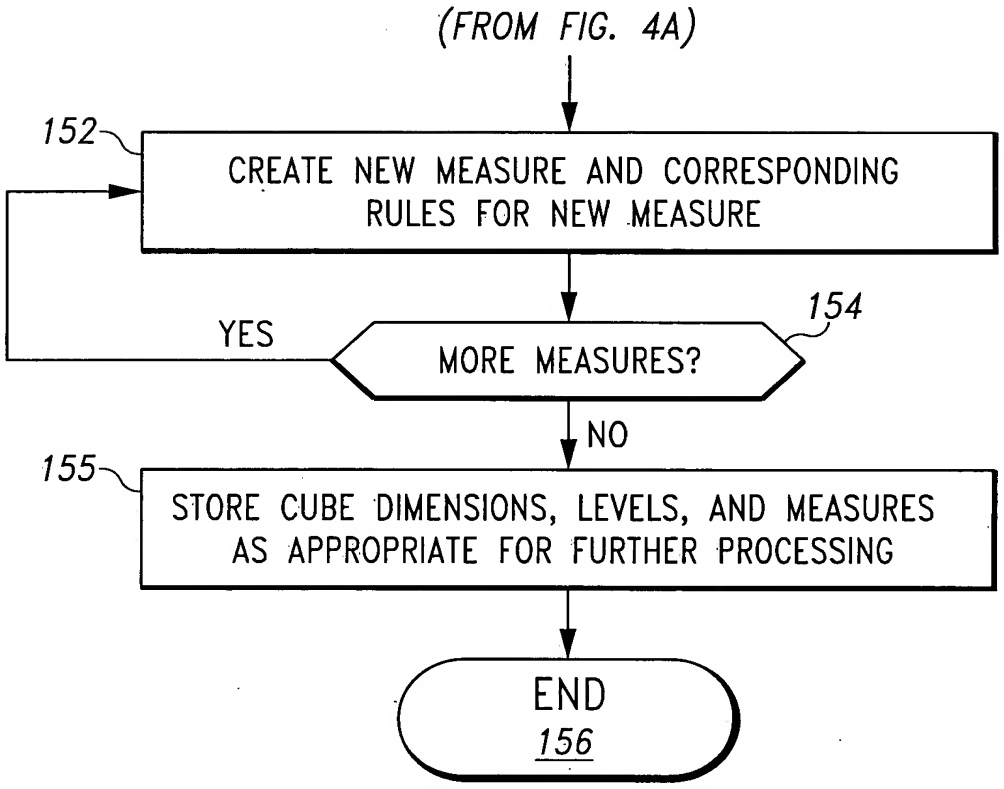

(FROM FIG. 4A)
152
CREATE NEW MEASURE AND CORRESPONDING RULES FOR NEW MEASURE
154
YES
MORE MEASURES?
NO
155
STORE CUBE DIMENSIONS, LEVELS, AND MEASURES AS APPROPRIATE FOR FURTHER PROCESSING
END
156

Fig. 4B

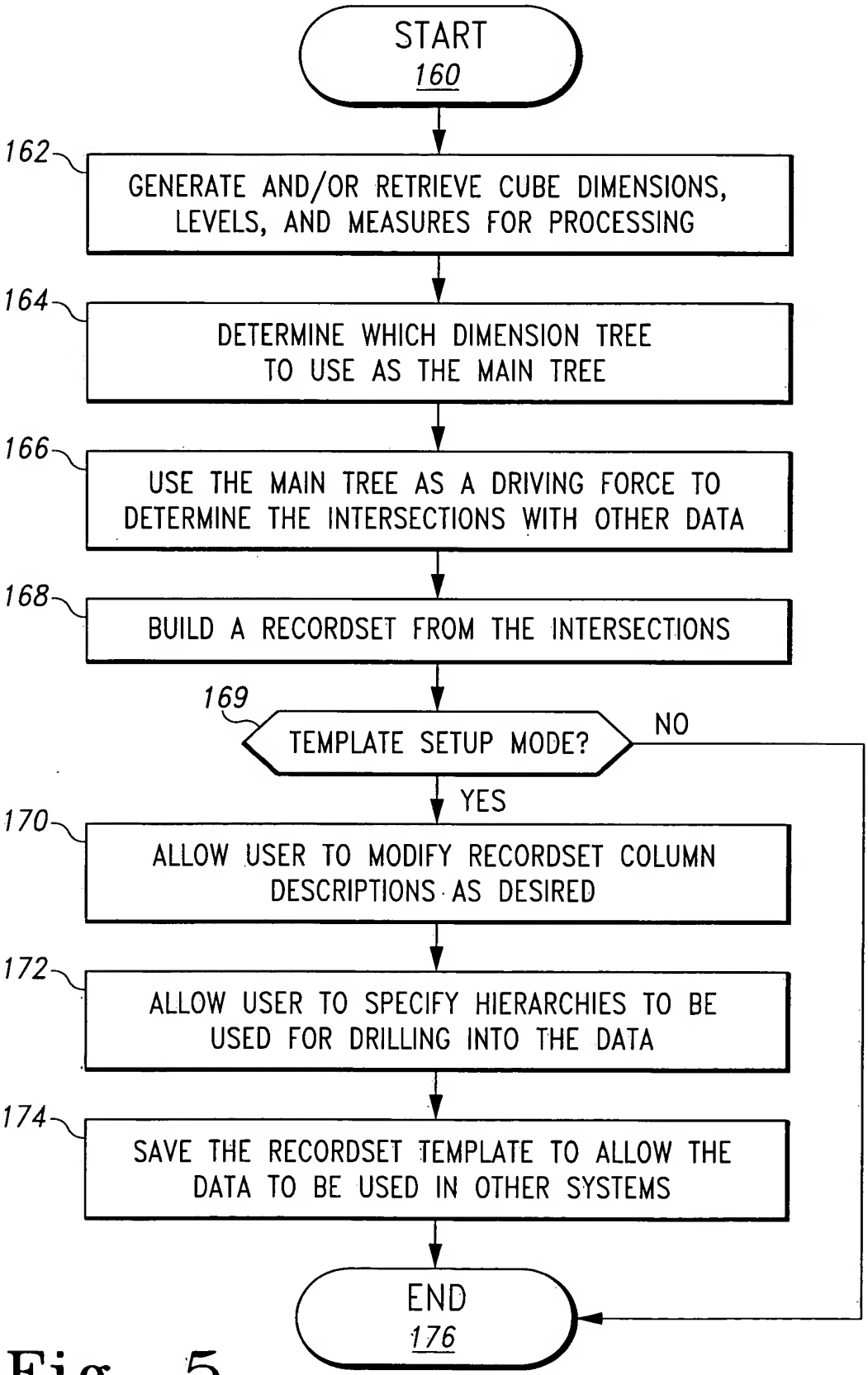

START
160
162
GENERATE AND/OR RETRIEVE CUBE DIMENSIONS, LEVELS, AND MEASURES FOR PROCESSING
164
DETERMINE WHICH DIMENSION TREE TO USE AS THE MAIN TREE
166
USE THE MAIN TREE AS A DRIVING FORCE TO DETERMINE THE INTERSECTIONS WITH OTHER DATA
168
BUILD A RECORDSET FROM THE INTERSECTIONS
169
TEMPLATE SETUP MODE?
NO
YES
170
ALLOW USER TO MODIFY RECORDSET COLUMN DESCRIPTIONS AS DESIRED
172
ALLOW USER TO SPECIFY HIERARCHIES TO BE USED FOR DRILLING INTO THE DATA
174
SAVE THE RECORDSET TEMPLATE TO ALLOW THE DATA TO BE USED IN OTHER SYSTEMS
END
176

Fig. 5

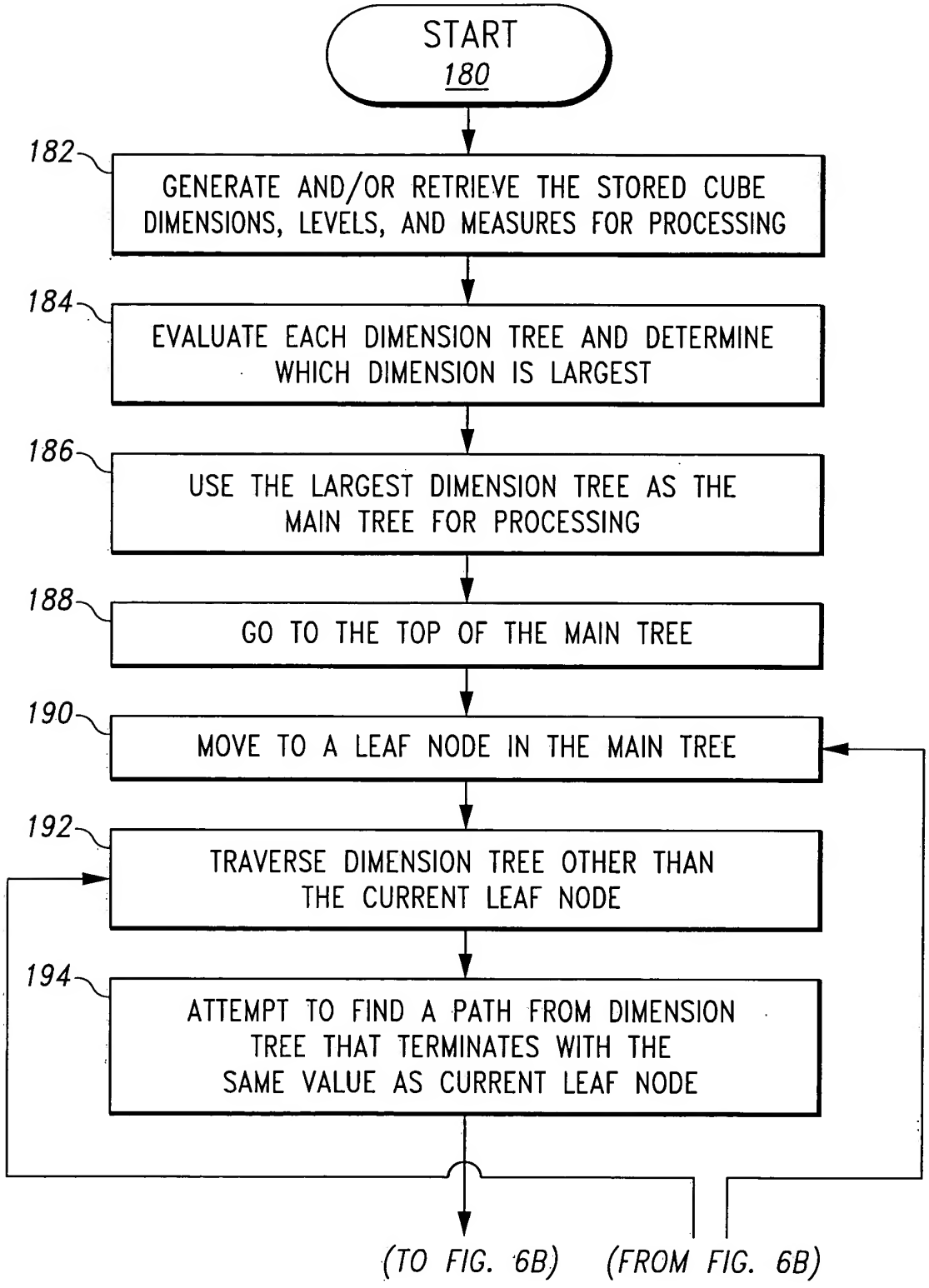

START
180
182
GENERATE AND/OR RETRIEVE THE STORED CUBE DIMENSIONS, LEVELS, AND MEASURES FOR PROCESSING
184
EVALUATE EACH DIMENSION TREE AND DETERMINE WHICH DIMENSION IS LARGEST
186
USE THE LARGEST DIMENSION TREE AS THE MAIN TREE FOR PROCESSING
188
GO TO THE TOP OF THE MAIN TREE
190
MOVE TO A LEAF NODE IN THE MAIN TREE
192
TRAVERSE DIMENSION TREE OTHER THAN THE CURRENT LEAF NODE
194
ATTEMPT TO FIND A PATH FROM DIMENSION TREE THAT TERMINATES WITH THE SAME VALUE AS CURRENT LEAF NODE
(TO FIG. 6B)
(FROM FIG. 6B)

Fig. 6A

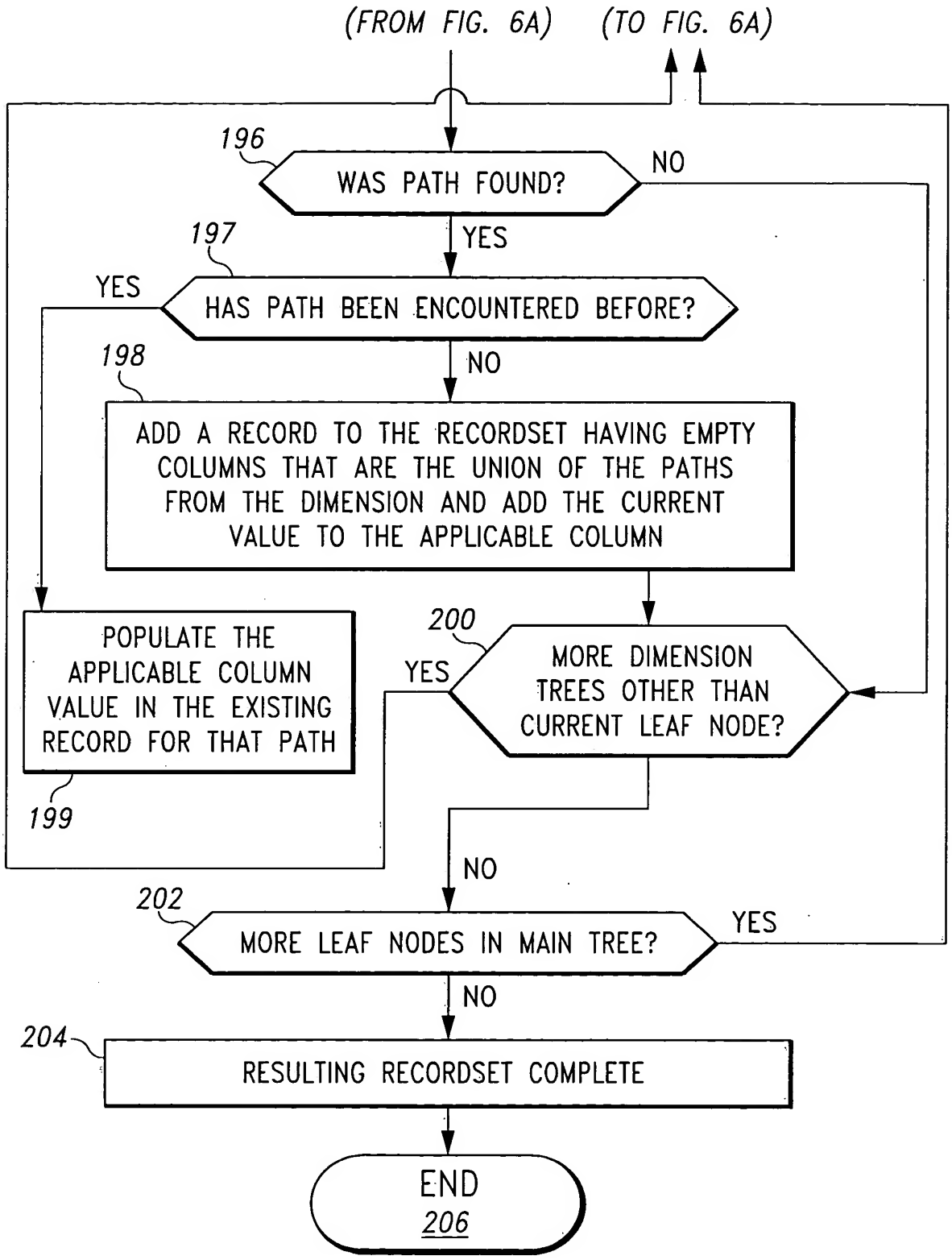

(FROM FIG. 6A)
(TO FIG. 6A)
196
WAS PATH FOUND?
NO
YES
197
HAS PATH BEEN ENCOUNTERED BEFORE?
YES
NO
198
ADD A RECORD TO THE RECORDSET HAVING EMPTY COLUMNS THAT ARE THE UNION OF THE PATHS FROM THE DIMENSION AND ADD THE CURRENT VALUE TO THE APPLICABLE COLUMN
POPULATE THE APPLICABLE COLUMN VALUE IN THE EXISTING RECORD FOR THAT PATH
199
200
MORE DIMENSION TREES OTHER THAN CURRENT LEAF NODE?
YES
NO
202
MORE LEAF NODES IN MAIN TREE?
YES
NO
204
RESULTING RECORDSET COMPLETE
END
206

Fig. 6B

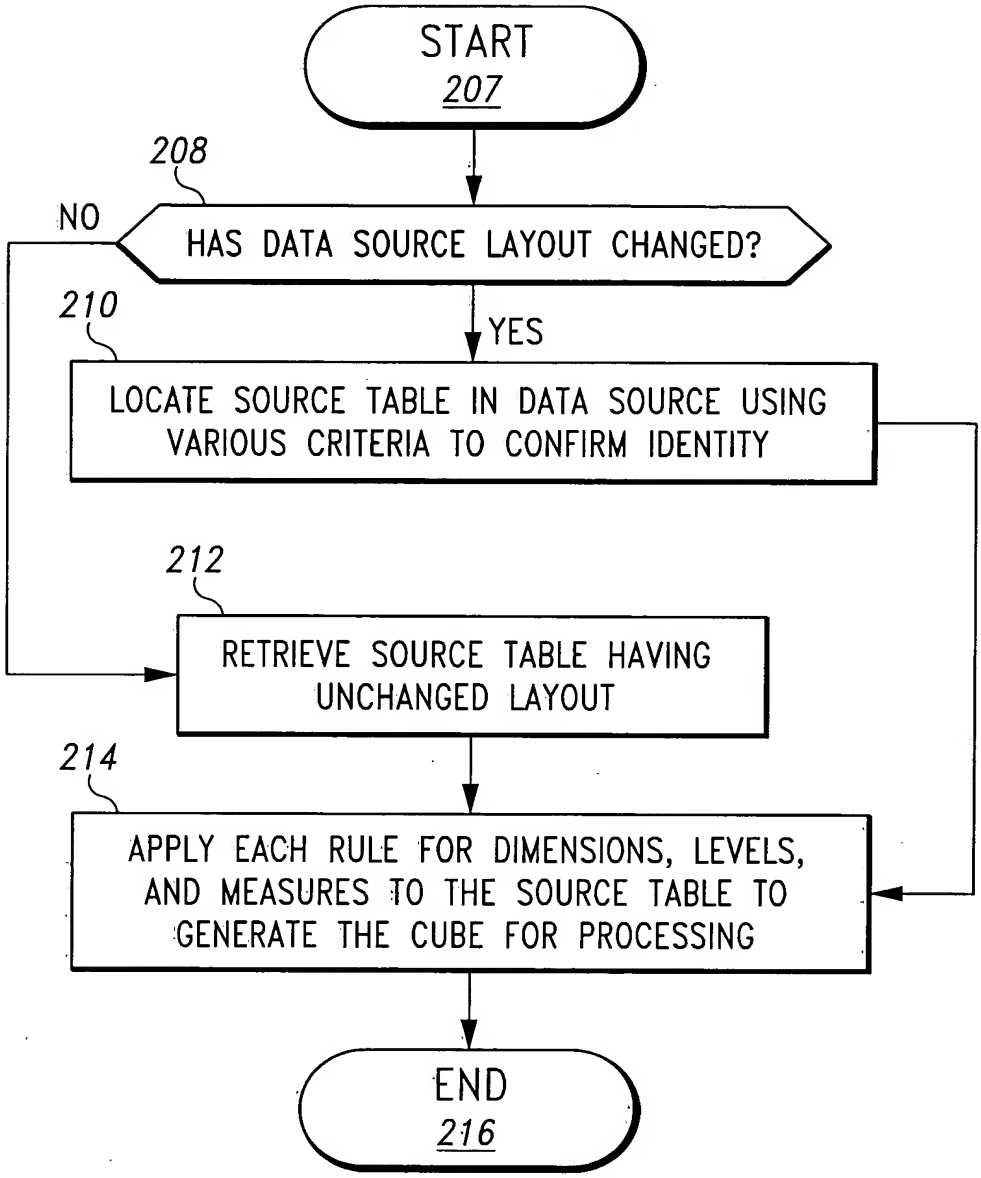

START
207
208
NO
HAS DATA SOURCE LAYOUT CHANGED?
210
YES
LOCATE SOURCE TABLE IN DATA SOURCE USING VARIOUS CRITERIA TO CONFIRM IDENTITY
212
RETRIEVE SOURCE TABLE HAVING UNCHANGED LAYOUT
214
APPLY EACH RULE FOR DIMENSIONS, LEVELS, AND MEASURES TO THE SOURCE TABLE TO GENERATE THE CUBE FOR PROCESSING
END
216

Fig. 7

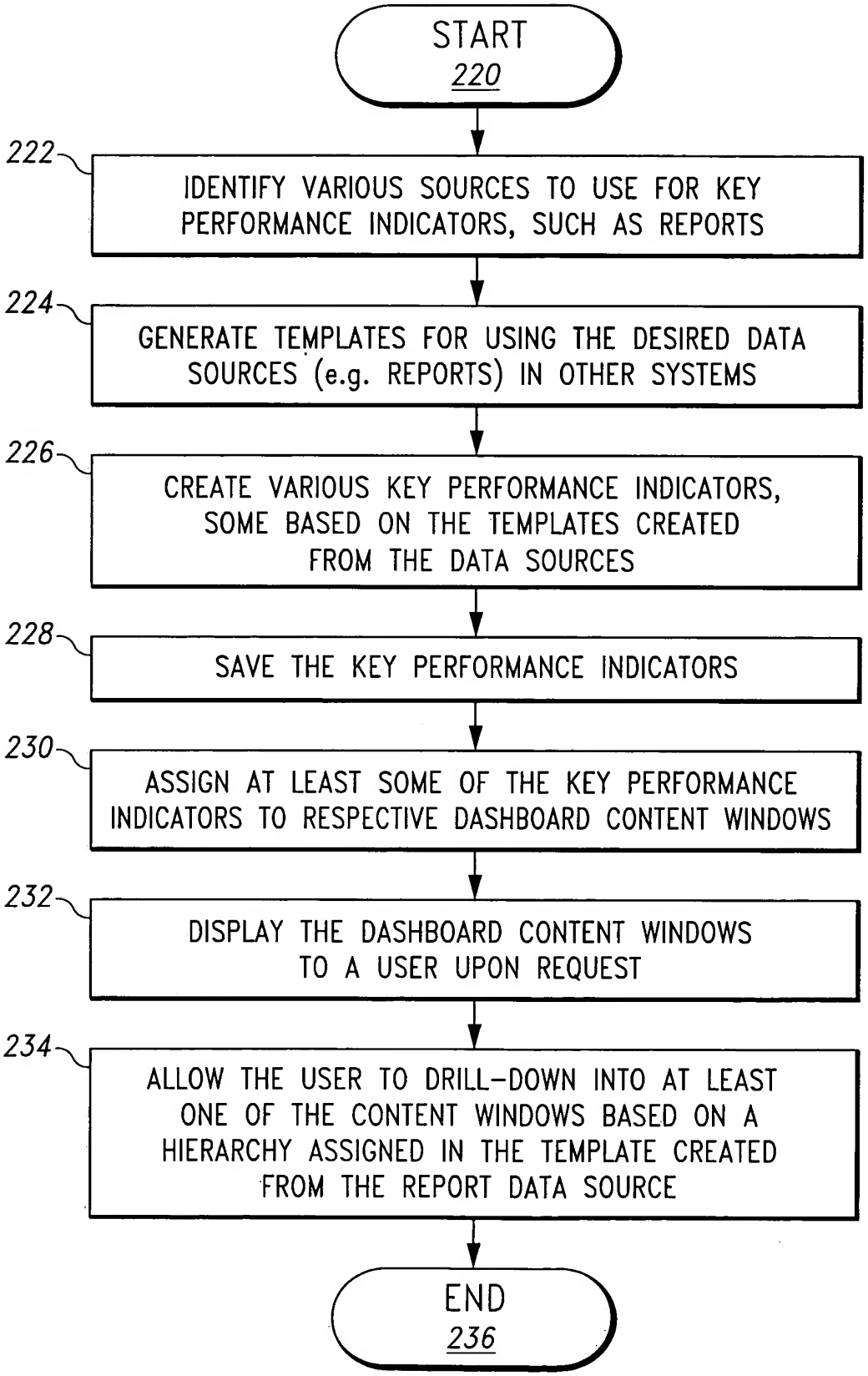

START
220
222
IDENTIFY VARIOUS SOURCES TO USE FOR KEY PERFORMANCE INDICATORS, SUCH AS REPORTS
224
GENERATE TEMPLATES FOR USING THE DESIRED DATA SOURCES (e.g. REPORTS) IN OTHER SYSTEMS
226
CREATE VARIOUS KEY PERFORMANCE INDICATORS, SOME BASED ON THE TEMPLATES CREATED FROM THE DATA SOURCES
228
SAVE THE KEY PERFORMANCE INDICATORS
230
ASSIGN AT LEAST SOME OF THE KEY PERFORMANCE INDICATORS TO RESPECTIVE DASHBOARD CONTENT WINDOWS
232
DISPLAY THE DASHBOARD CONTENT WINDOWS TO A USER UPON REQUEST
234
ALLOW THE USER TO DRILL-DOWN INTO AT LEAST ONE OF THE CONTENT WINDOWS BASED ON A HIERARCHY ASSIGNED IN THE TEMPLATE CREATED FROM THE REPORT DATA SOURCE
END
236

Fig. 8

240

Semi-monthly Time Reporting By Year

			1999		2000	
			Actual	Budget	Actual	Budget
Q1	January	1	125	343	432	34
		2	432	233	54	23
	February	1	653	332	765	34
		2	243	422	234	234
	March	1	231	76	65	543
		2	653	324	24	23
Q2	April	1	342	65	453	234
		2	642	324	54	654
	May	1	452	654	324	23
		2	357	234	465	54
	June	1	435	543	23	23
		2	432	234	547	45

Fig. 9

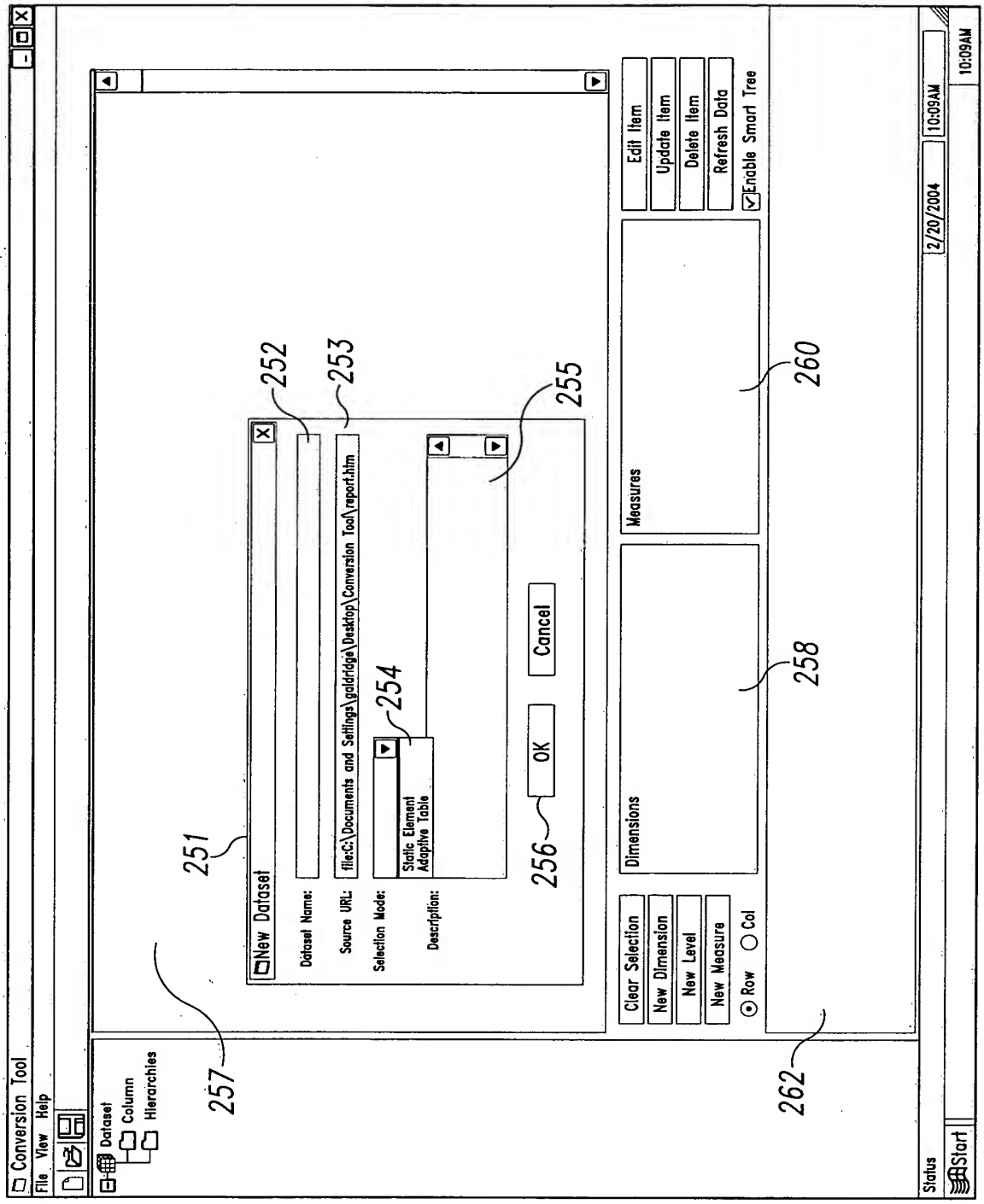

Conversion Tool
File View Help
Dataset
Column Hierarchies
New Dataset
Dataset Name:
Source URL:
file:C:\Documents and Settings\galdridge\Desktop\Conversion Tool\report.htm
Selection Mode:
Static Element
Adaptive Table
Description:
OK
Cancel
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:09AM
10:09AM
250
251
252
253
254
255
256
257
258
260
262

Fig. 10

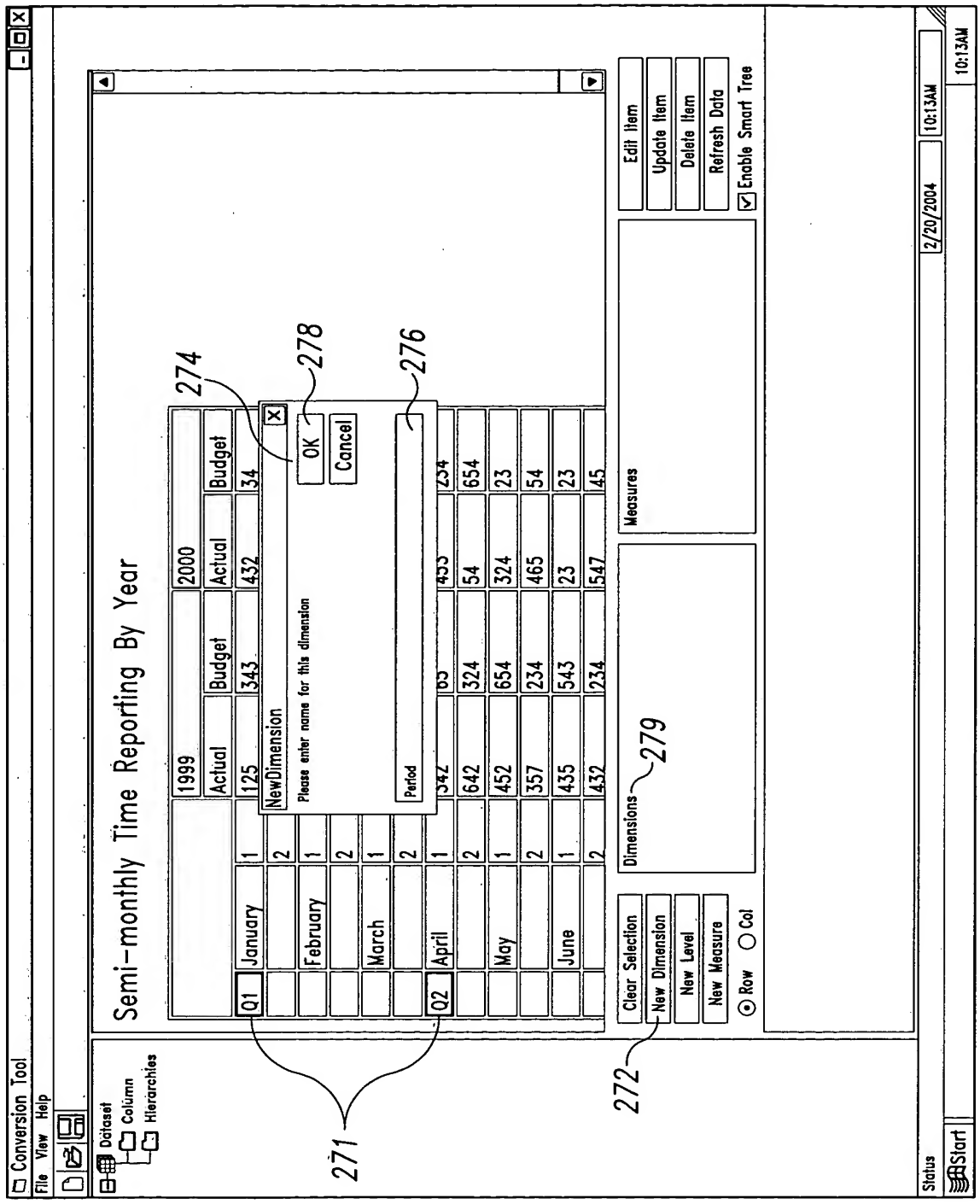

Conversion Tool
File View Help
Dataset
Column
Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Actual
Budget
Q1
January
1
125
343
432
34
2
NewDimension
Please enter name for this dimension
OK
Cancel
February
1
2
March
1
2
Q2
April
1
2
May
1
2
June
1
2
Period
642
324
654
452
357
234
435
543
23
432
234
547
45
Dimensions
Measures
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:13AM
271
272
274
276
278
279
270

Fig. 11

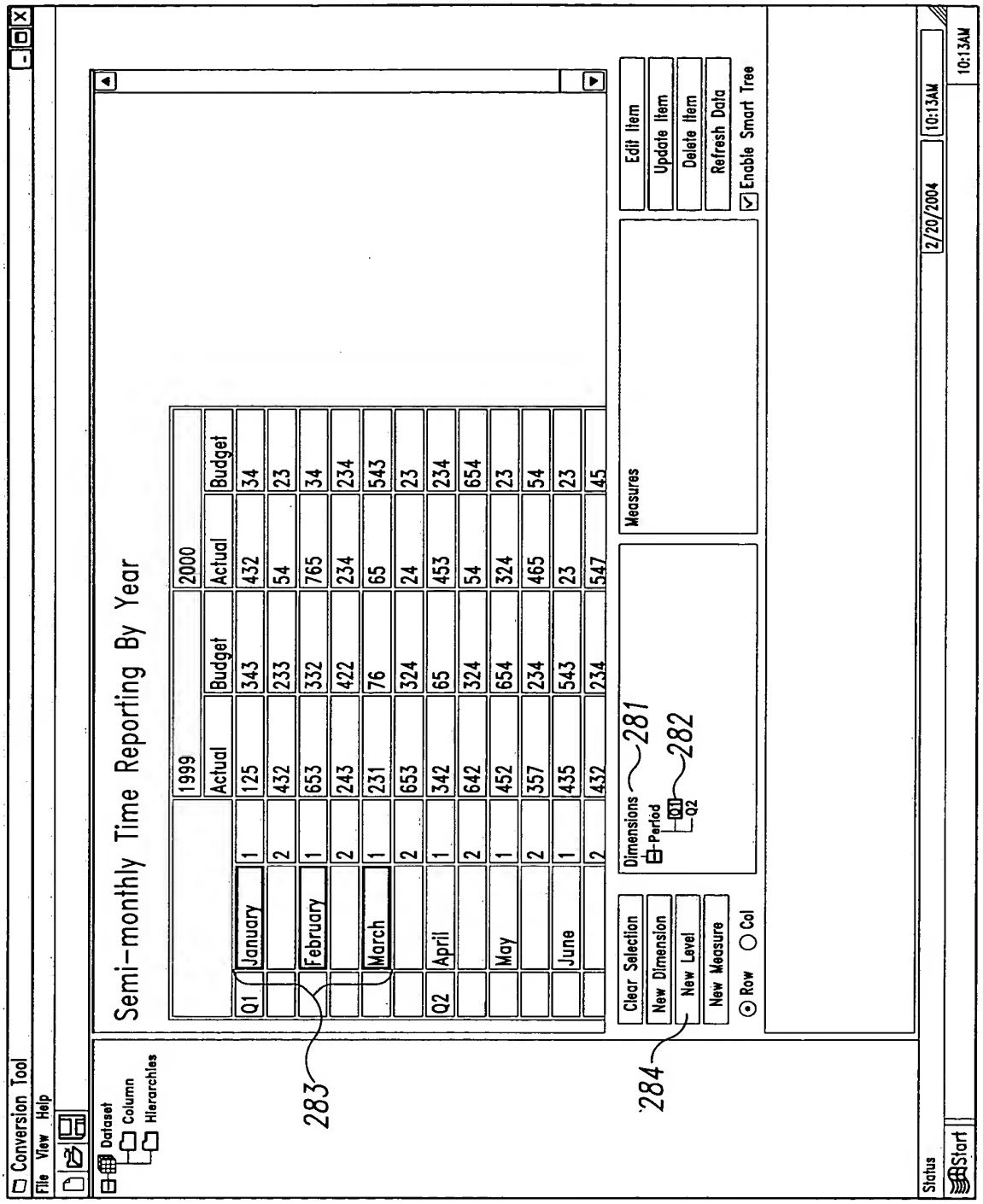
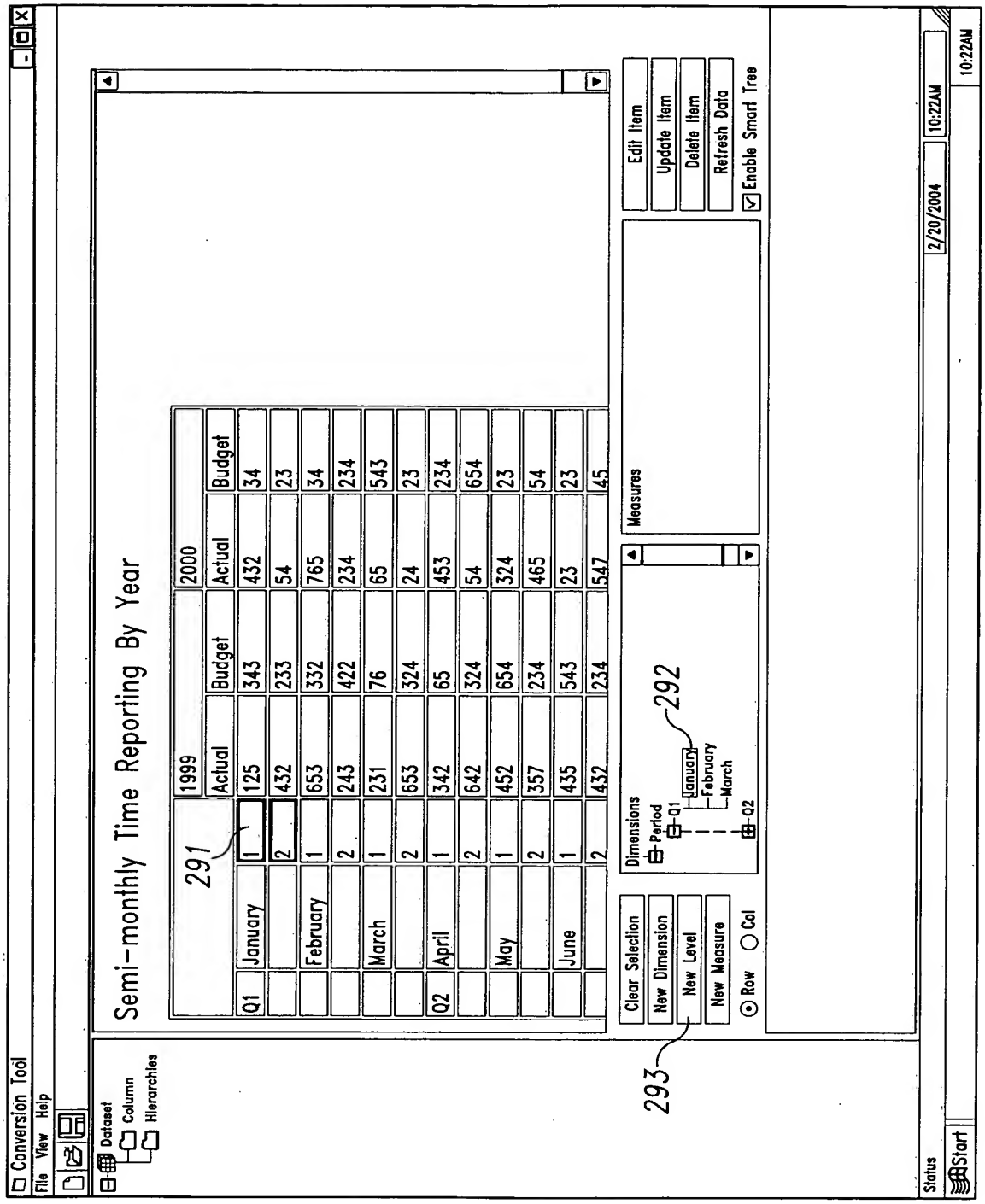

Conversion Tool
File View Help
Dataset
Column Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Actual
Budget
Q1
January
1
125
343
432
34
2
432
233
54
23
February
1
653
332
765
34
2
243
422
234
234
March
1
231
76
65
543
2
653
324
24
23
Q2
April
1
342
65
453
234
2
642
324
54
654
May
1
452
654
324
23
2
357
234
465
54
June
1
435
543
23
23
2
432
234
547
45
283
284
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
Q1
Q2
281
282
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:13AM
10:13AM
280

Fig. 12


Conversion Tool
File View Help
Dataset
Column Hierarchies
Semi-monthly Time Reporting By Year
291
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
Q1
Q2
January
February
March
292
293
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:22AM

290

Fig. 13

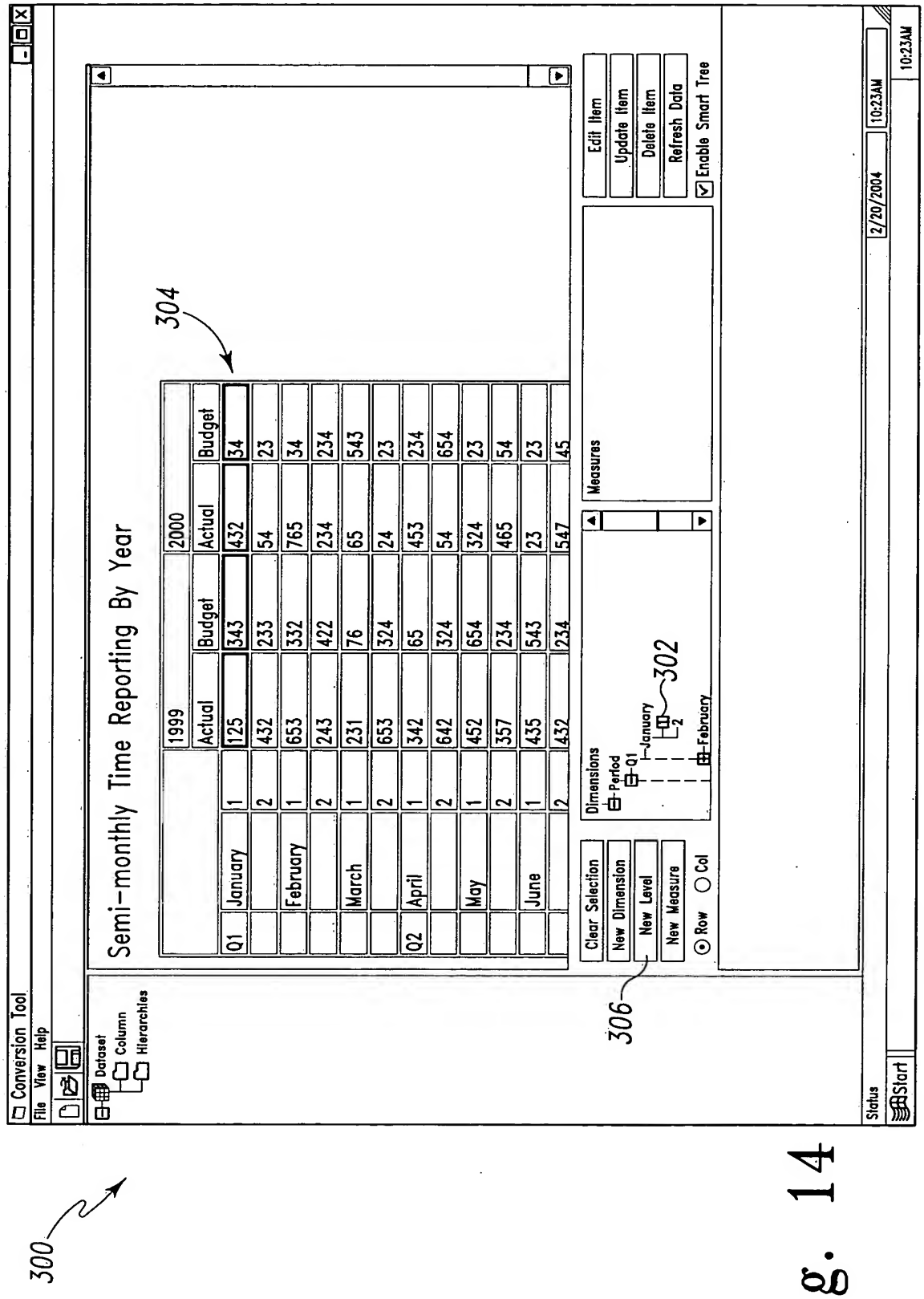
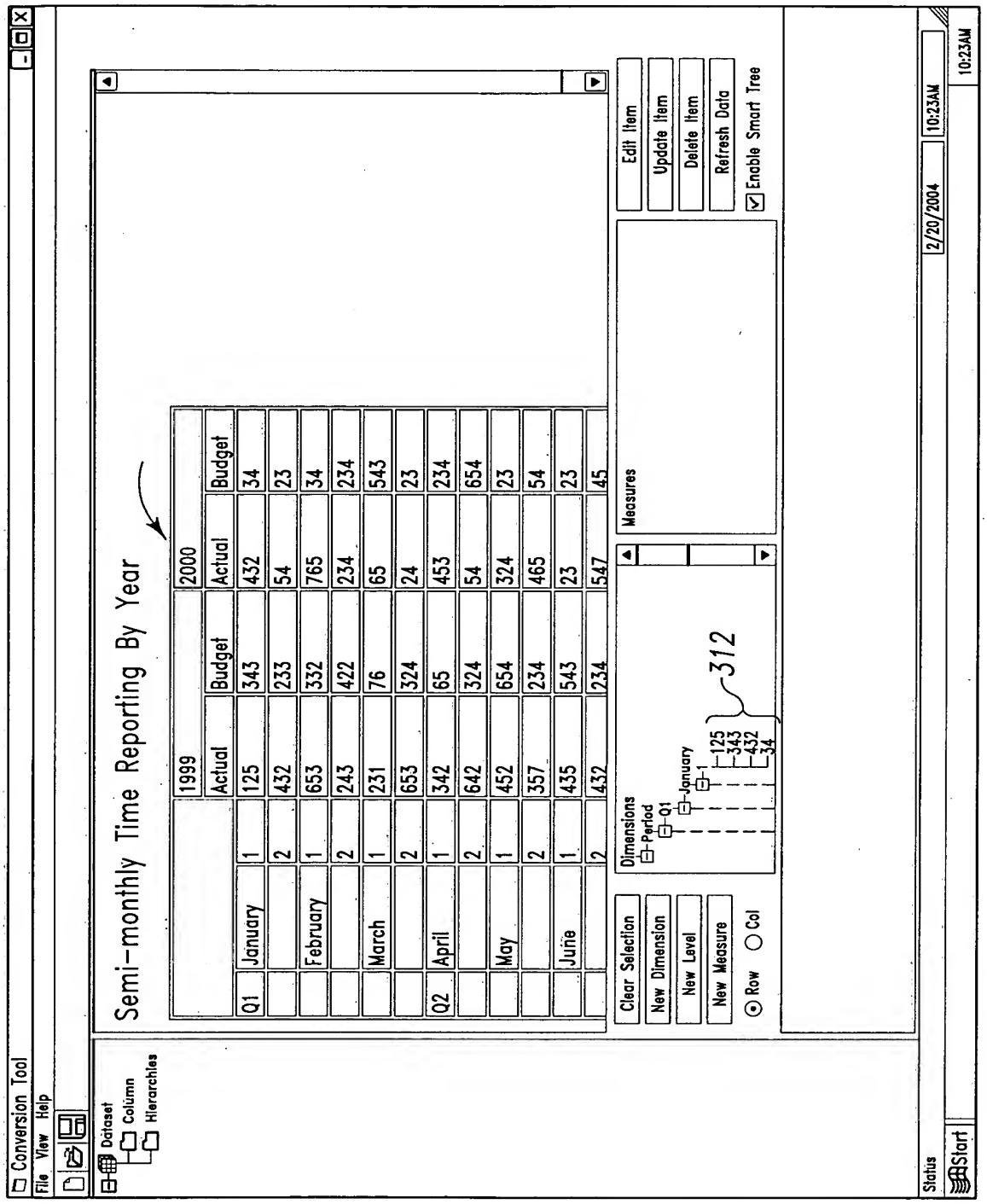
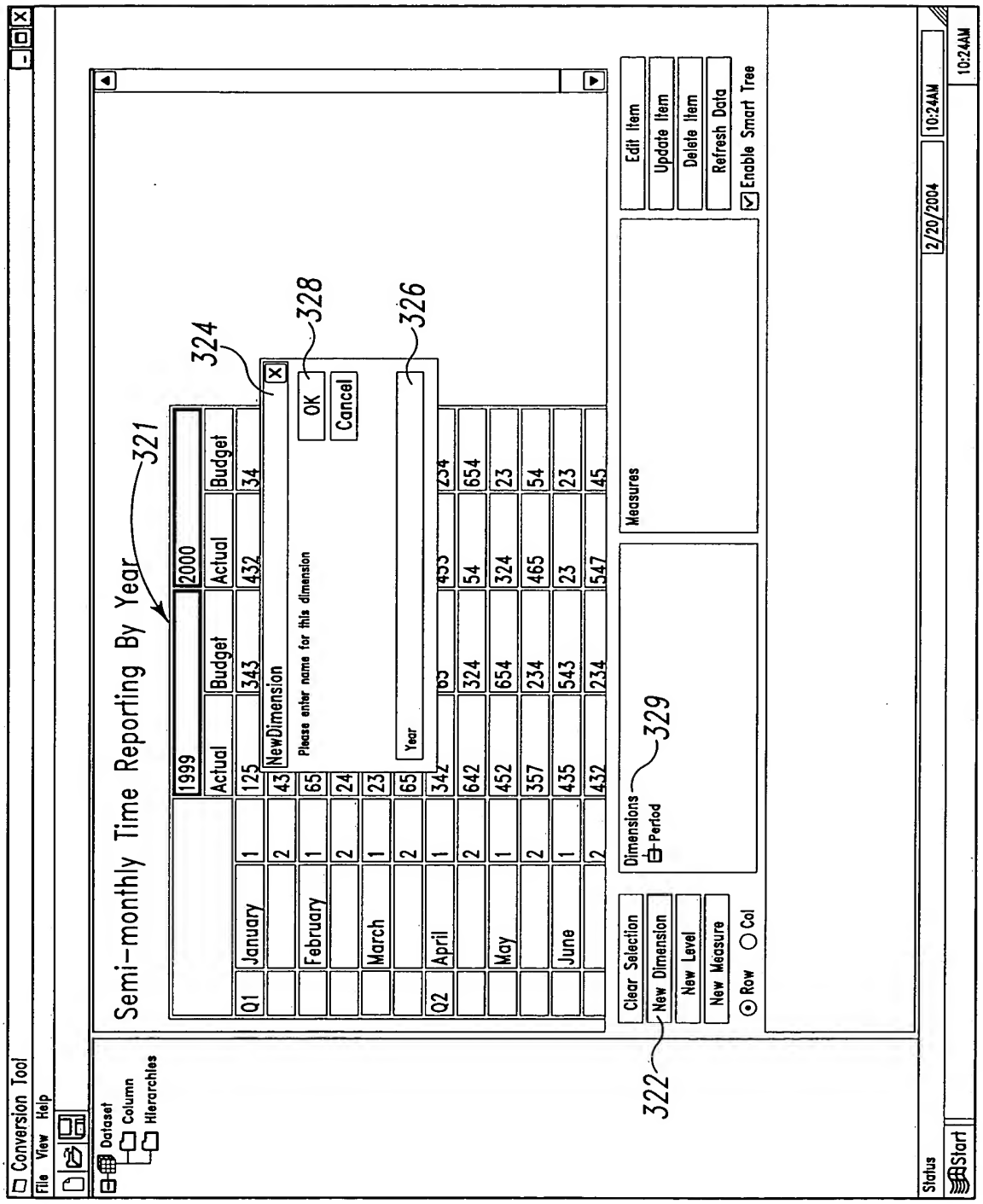

300
Conversion Tool
File View Help
Dataset
Column
Hierarchies
Semi-monthly Time Reporting By Year
304
1999
2000
Actual
Budget
Q1 January 1 125 343 432 34
2 432 233 54 23
February 1 653 332 765 34
2 243 422 234 234
March 1 231 76 65 543
2 653 324 24 23
Q2 April 1 342 65 453 234
2 642 324 54 654
May 1 452 654 324 23
2 357 234 465 54
June 1 435 543 23 23
2 432 234 547 45
Clear Selection
New Dimension
New Level
New Measure
Row
Col
306
Dimensions
Period
Q1
January
February
302
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:23AM
10:23AM

Fig. 14


Conversion Tool
File View Help
Dataset
Column
Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
Q1
January
125
343
432
34
312
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:23AM

310

Fig. 15


Conversion Tool
File View Help
Dataset
Column
Hierarchies
Semi-monthly Time Reporting By Year
321
324
328
326
OK
Cancel
Please enter name for this dimension
NewDimension
Year
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
329
322
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:24AM

320

Fig. 16

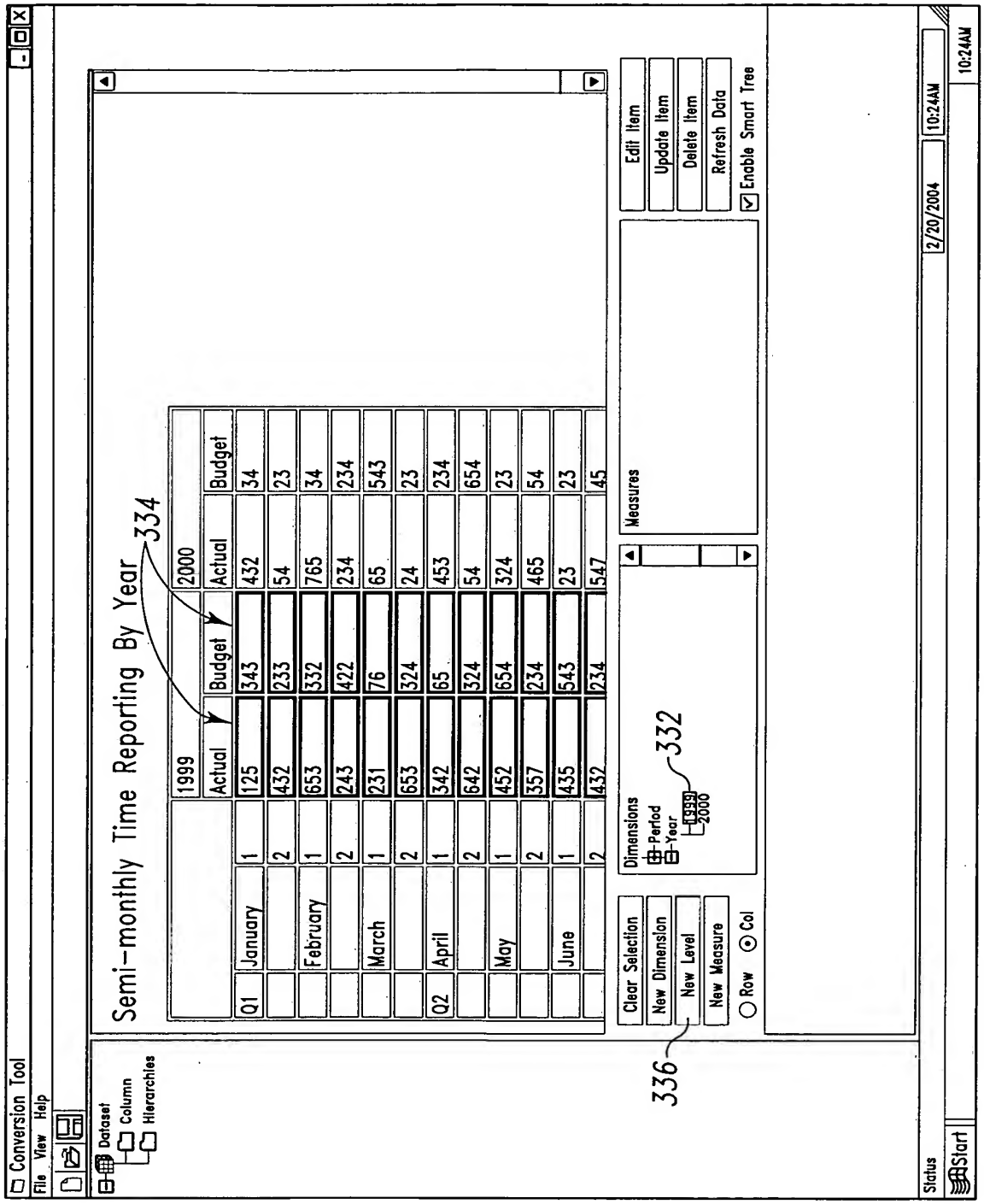
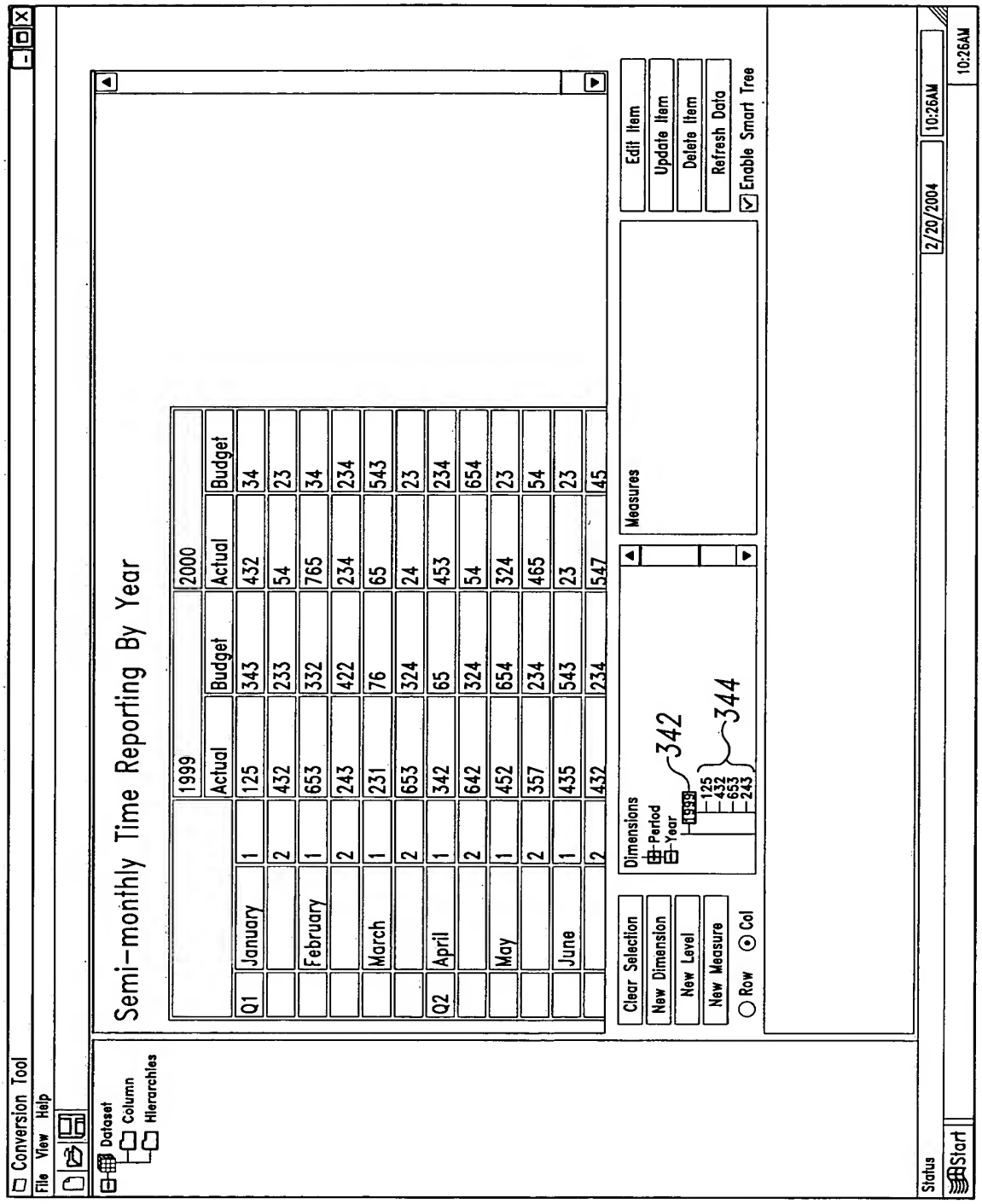
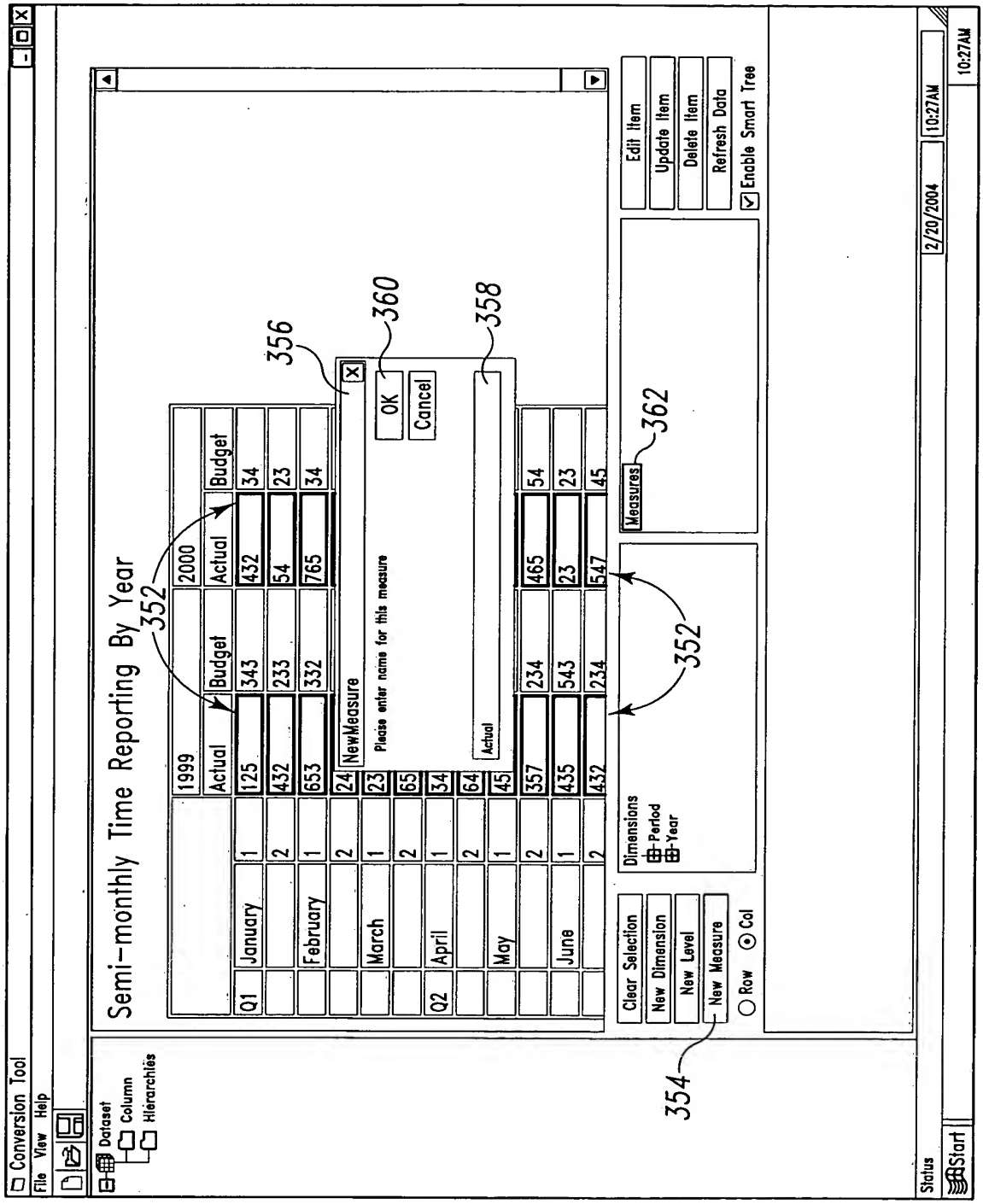

Conversion Tool
File View Help
Dataset
Column Hierarchies
Semi-monthly Time Reporting By Year
334
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
Year
1999
2000
332
336
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:24AM
330

Fig. 17


Conversion Tool
File View Help
Dataset
Column Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Dimensions
Period
Year
342
344
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Status
Start
2/20/2004
10:26AM

340

Fig. 18


Conversion Tool
File View Help
Dataset
Column
Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
NewMeasure
Please enter name for this measure
OK
Cancel
Measures
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Dimensions
Period
Year
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Status
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2/20/2004
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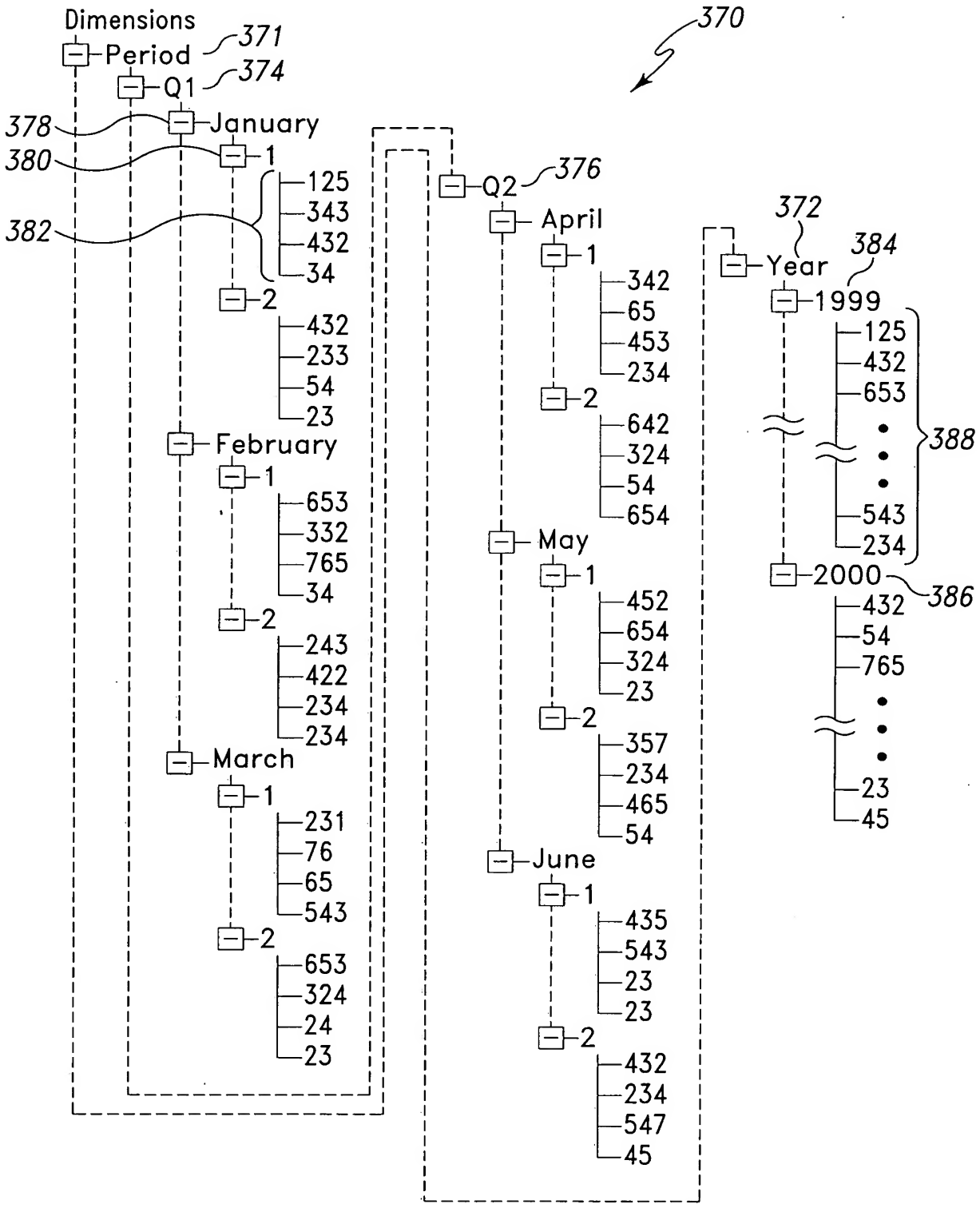
350
352
354
356
358
360
362

Fig. 19


Dimensions
Period
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Q1
374
370
378
January
380
1
125
343
432
34
382
2
432
233
54
23
February
1
653
332
765
34
2
243
422
234
234
March
1
231
76
65
543
2
653
324
24
23
Q2
376
April
1
342
65
453
234
2
642
324
54
654
May
1
452
654
324
23
2
357
234
465
54
June
1
435
543
23
23
2
432
234
547
45
372
Year
384
1999
125
432
653
543
234
388
2000
386
432
54
765
23
45

Fig. 20

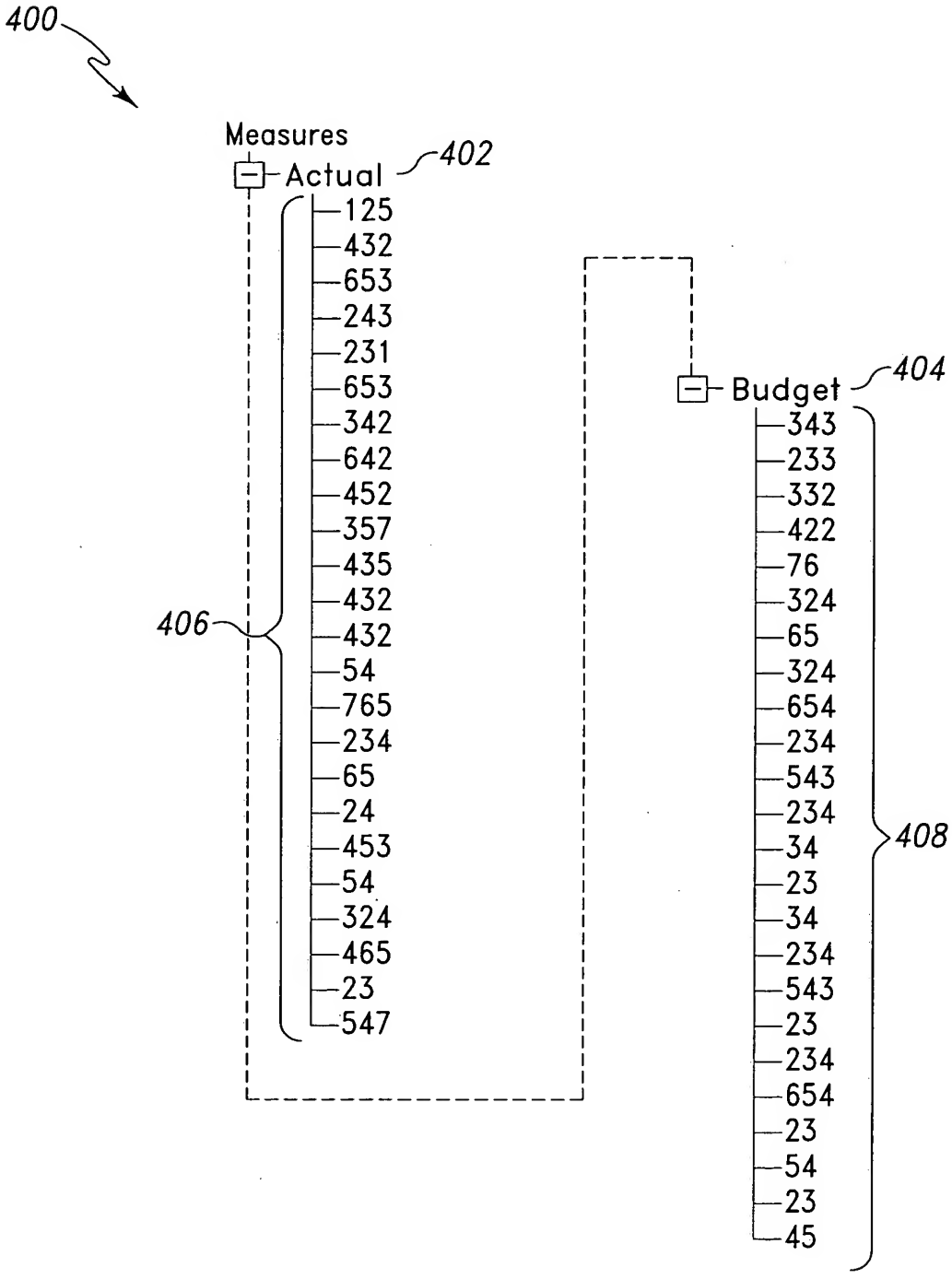
400
Measures
Actual
402
125
432
653
243
231
653
342
642
452
357
435
432
432
54
765
234
65
24
453
54
324
465
23
547
406
Budget
404
343
233
332
422
76
324
65
324
654
234
543
234
34
23
34
234
543
23
234
654
23
54
23
45
408

Fig. 21

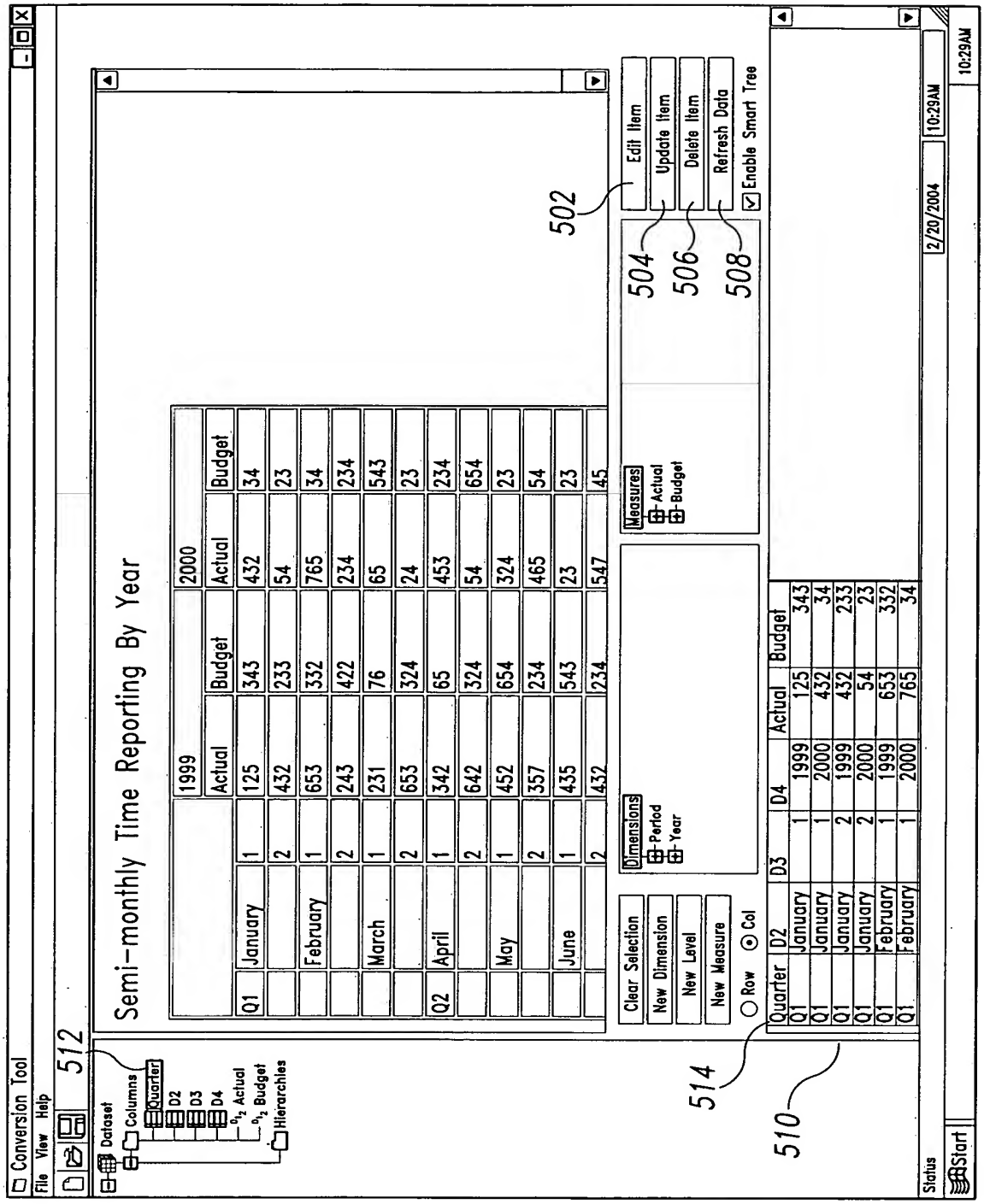
Conversion Tool
File View Help
512
Dataset
Columns
Quarter
D2
D3
D4
Actual
Budget
Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Q1 January 1 125 343 432 34
2 432 233 54 23
February 1 653 332 765 34
2 243 422 234 234
March 1 231 76 65 543
2 653 324 24 23
Q2 April 1 342 65 453 234
2 642 324 54 654
May 1 452 654 324 23
2 357 234 465 54
June 1 435 543 23 23
2 432 234 547 45
502
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
504
506
508
Measures
Actual
Budget
Dimensions
Period
Year
Clear Selection
New Dimension
New Level
New Measure
Row
Col
514
Quarter D2 D3 D4 Actual Budget
Q1 January 1 1999 125 343
Q1 January 1 2000 432 34
Q1 January 2 1999 432 233
Q1 January 2 2000 54 23
Q1 February 1 1999 653 332
Q1 February 1 2000 765 34
510
Status
Start
2/20/2004
10:29AM
10:29AM
500

Fig. 22

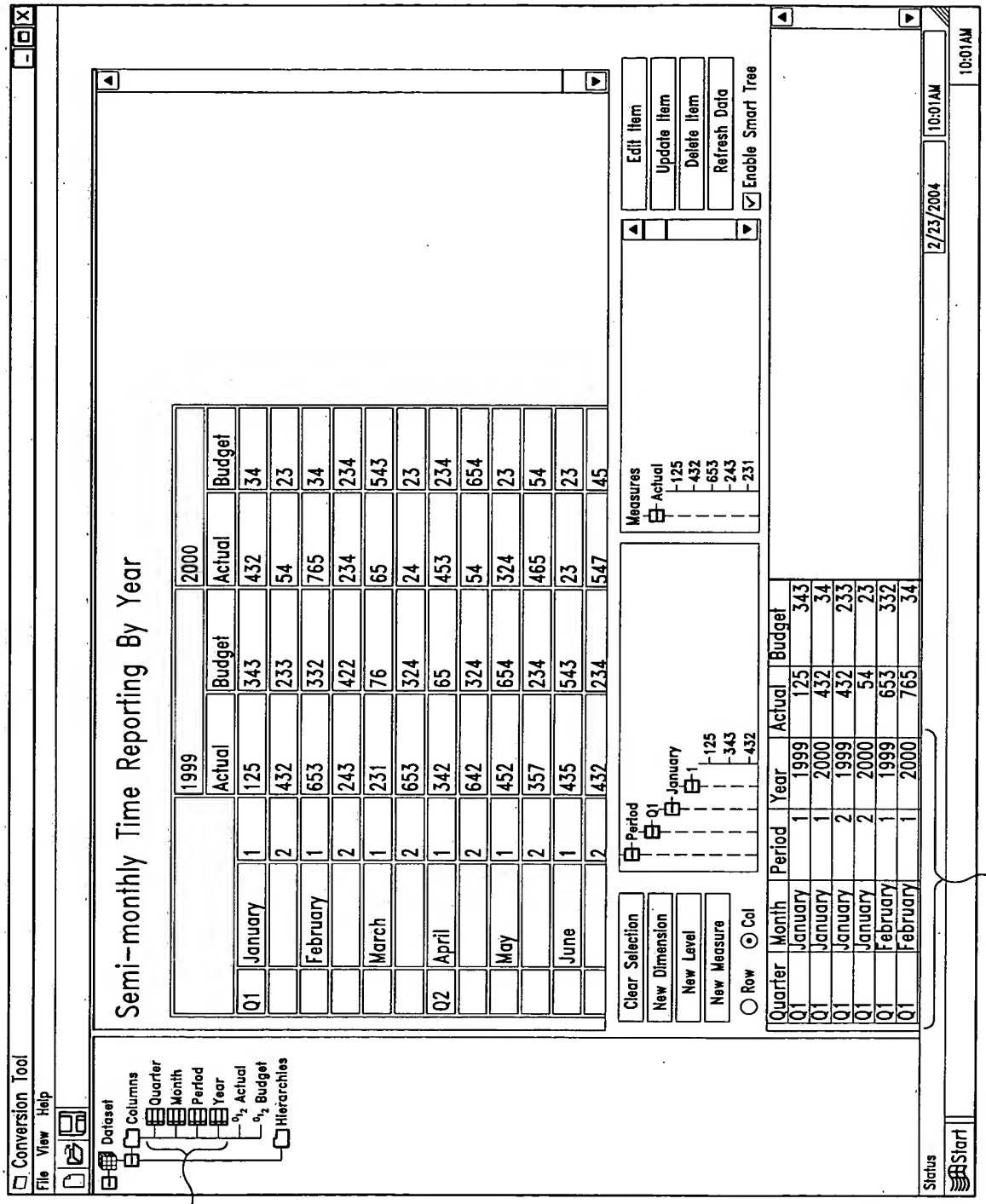
Conversion Tool
File View Help
Dataset
Columns
Quarter
Month
Period
Year
Actual
Budget
Hierarchies
Semi-monthly Time Reporting By Year
1999
2000
Actual
Budget
Q1
January
February
March
Q2
April
May
June
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Period
Q1
January
Measures
Actual
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Quarter
Month
Period
Year
Actual
Budget
Status
Start
2/23/2004
10:01AM
516
517
518

Fig. 23

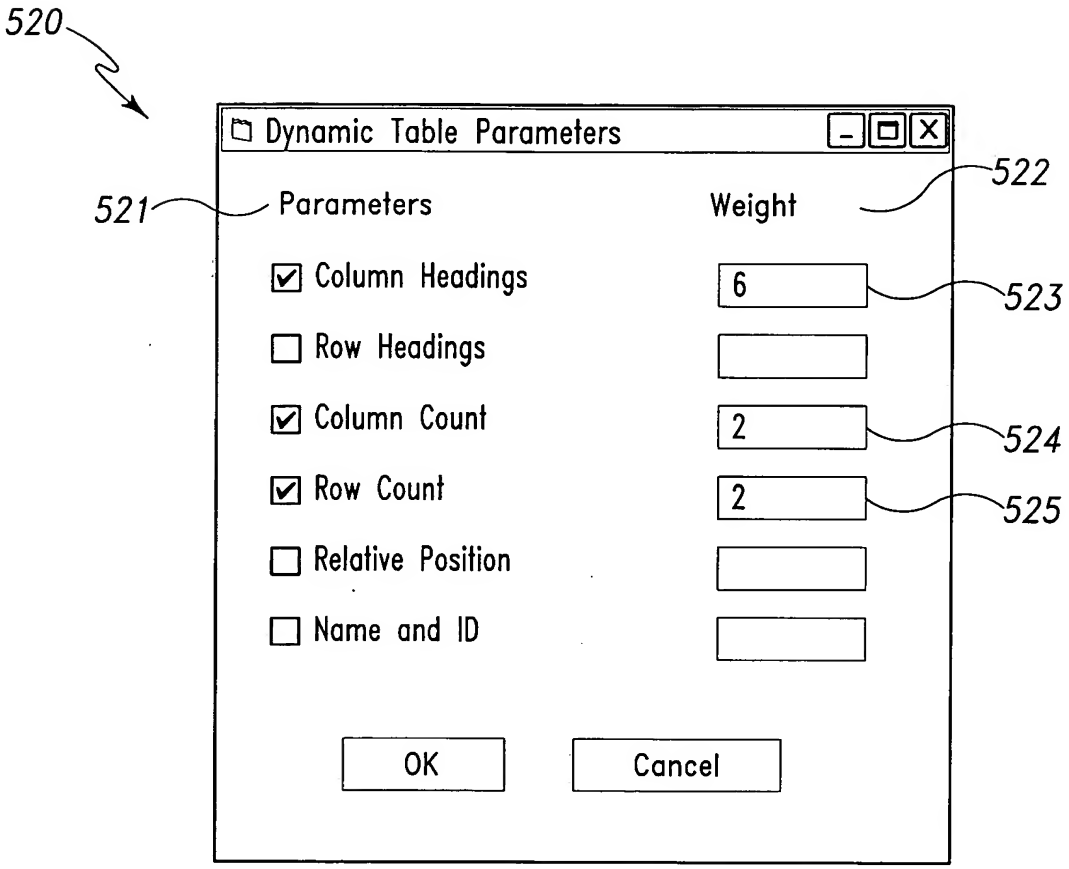
520
Dynamic Table Parameters
521
Parameters
Weight
522
Column Headings
6
523
Row Headings
Column Count
2
524
Row Count
2
525
Relative Position
Name and ID
OK
Cancel

Fig. 24

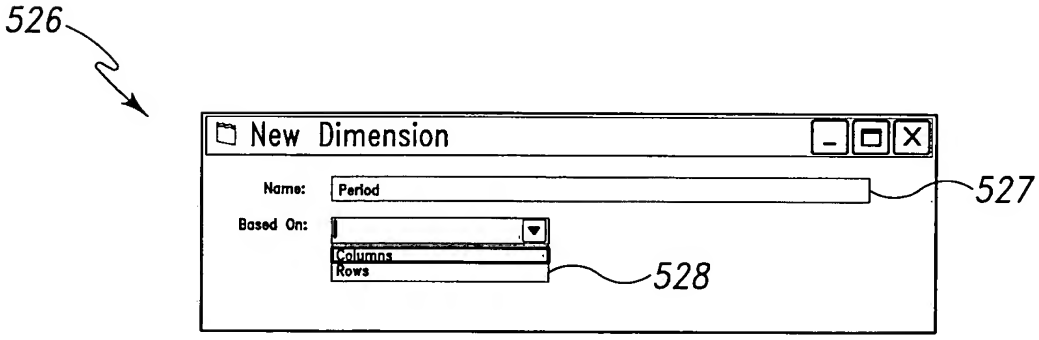
526
New Dimension
Name:
Period
527
Based On:
Columns
Rows
528

Fig. 25

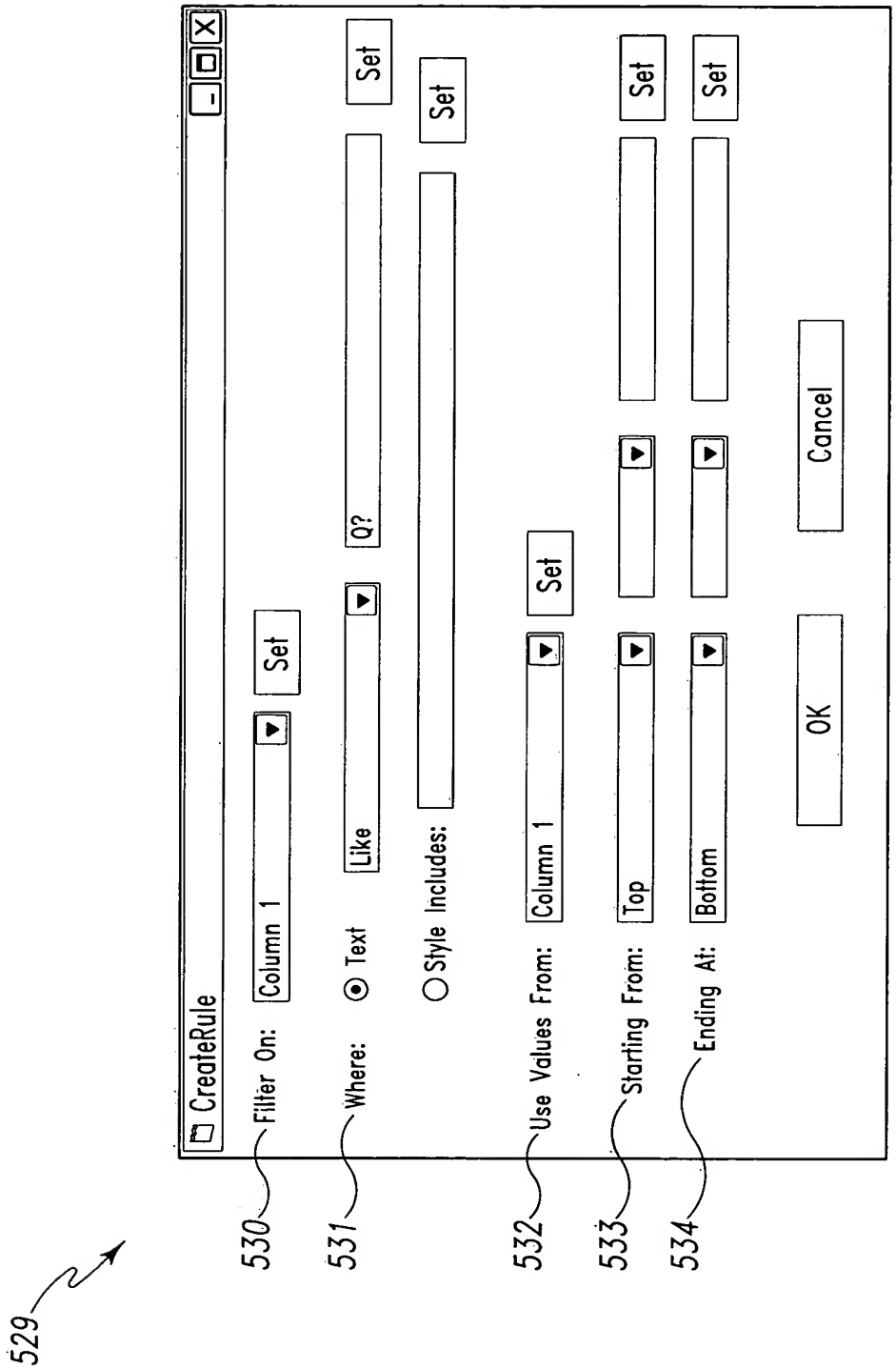
529
CreateRule
Filter On:
Column 1
Set
Where:
Text
Like
Q?
Set
Style
Includes:
Set
Use Values From:
Column 1
Set
Starting From:
Top
Set
Ending At:
Bottom
Set
OK
Cancel
530
531
532
533
534

Fig. 26

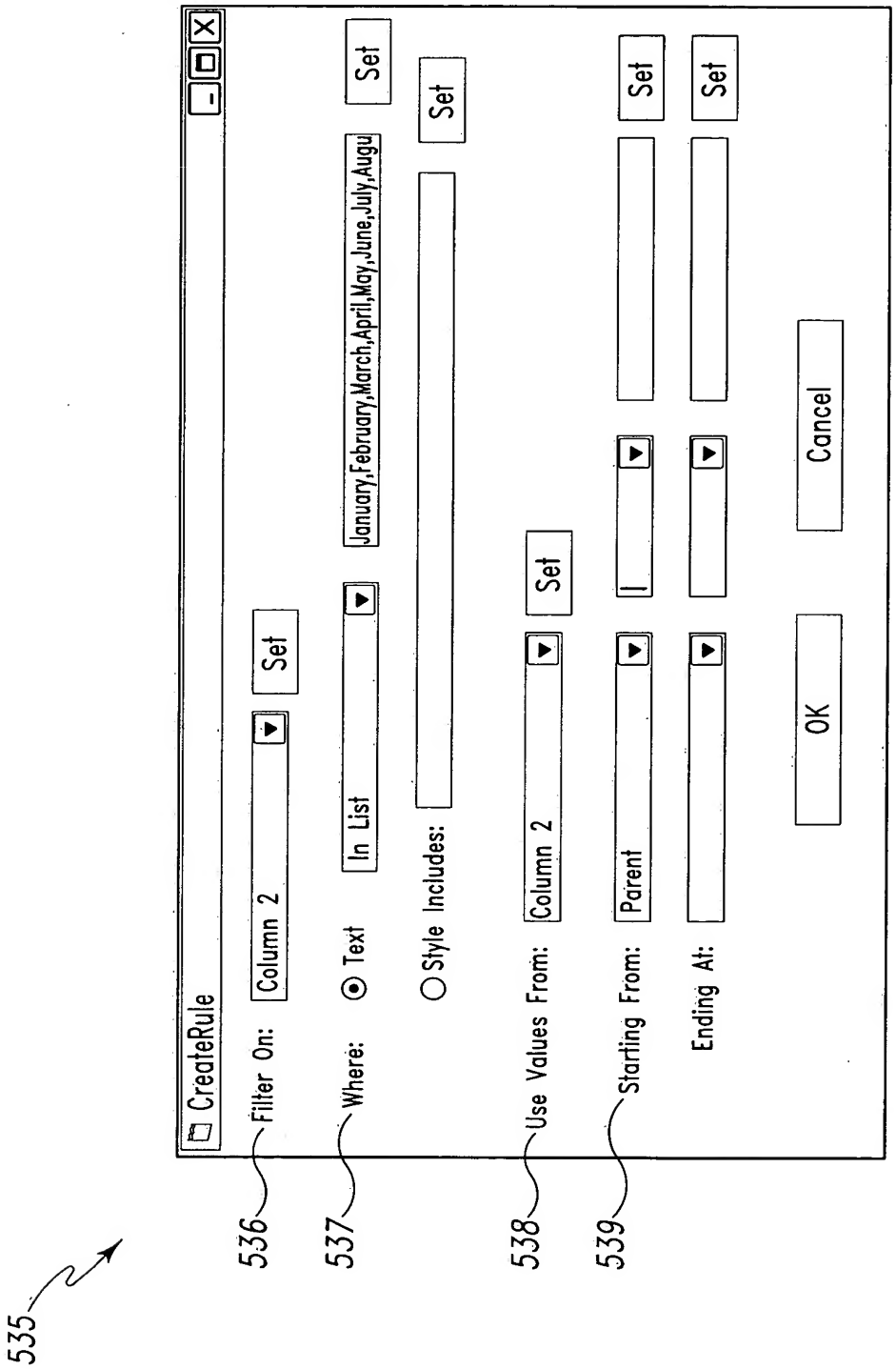
535
CreateRule
Filter On:
Column 2
Set
Where:
Text
In List
January,February,March,April,May,June,July,Augu
Set
Style Includes:
Set
Use Values From:
Column 2
Set
Starting From:
Parent
Ending At:
Set
Set
OK
Cancel
536
537
538
539

Fig. 27

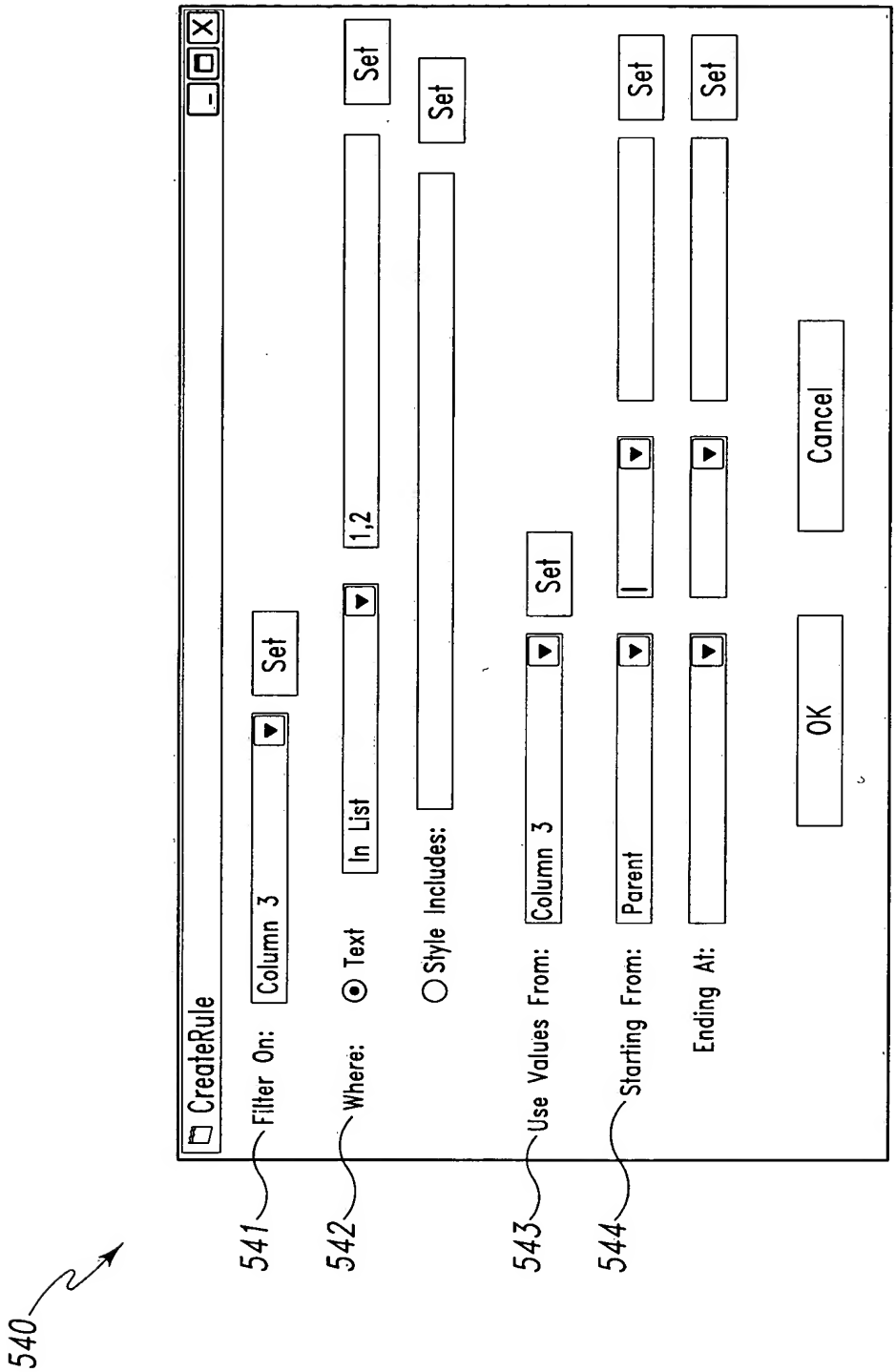
CreateRule
Filter On:
Column 3
Set
Where:
Text
In List
1,2
Set
Style
Includes:
Set
Use Values From:
Column 3
Set
Starting From:
Parent
Set
Ending At:
Set
OK
Cancel
540
541
542
543
544

Fig. 28

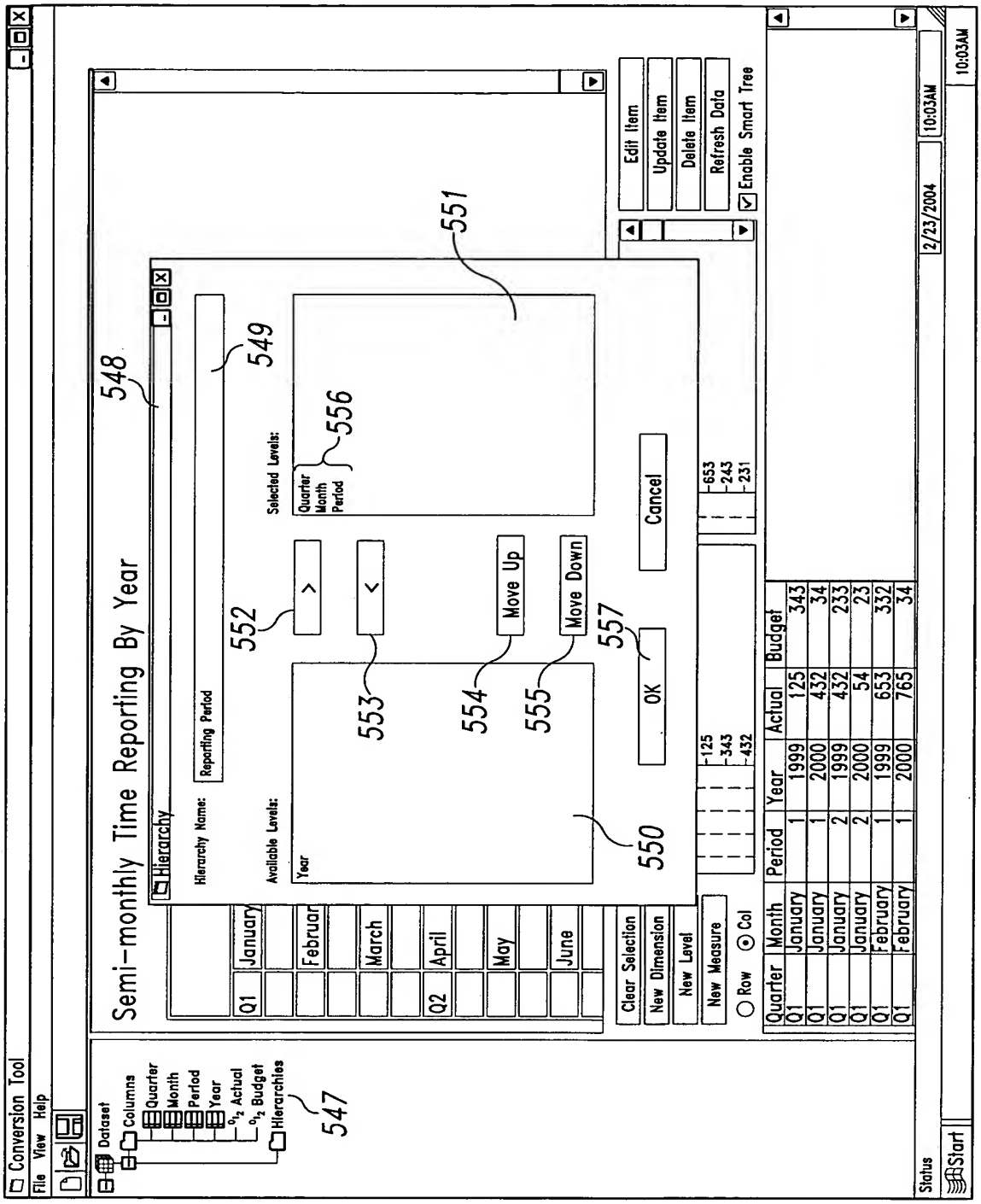
Conversion Tool
File View Help
Dataset
Columns
Quarter
Month
Period
Year
Actual
Budget
Hierarchies
547
Semi-monthly Time Reporting By Year
548
Hierarchy
Hierarchy Name:
Reporting Period
549
Available Levels:
Year
550
551
552
553
554
555
556
Selected Levels:
Quarter
Month
Period
557
Move Up
Move Down
Cancel
OK
Edit Item
Update Item
Delete Item
Refresh Data
Enable Smart Tree
Clear Selection
New Dimension
New Level
New Measure
Row
Col
Quarter
Month
Period
Year
Actual
Budget
Q1 January 1 1999 125 343
Q1 January 1 2000 432 34
Q1 January 2 1999 432 233
Q1 January 2 2000 54 23
Q1 February 1 1999 653 332
Q1 February 1 2000 765 34
2/23/2004
10:03AM
Status
Start
546

Fig. 29

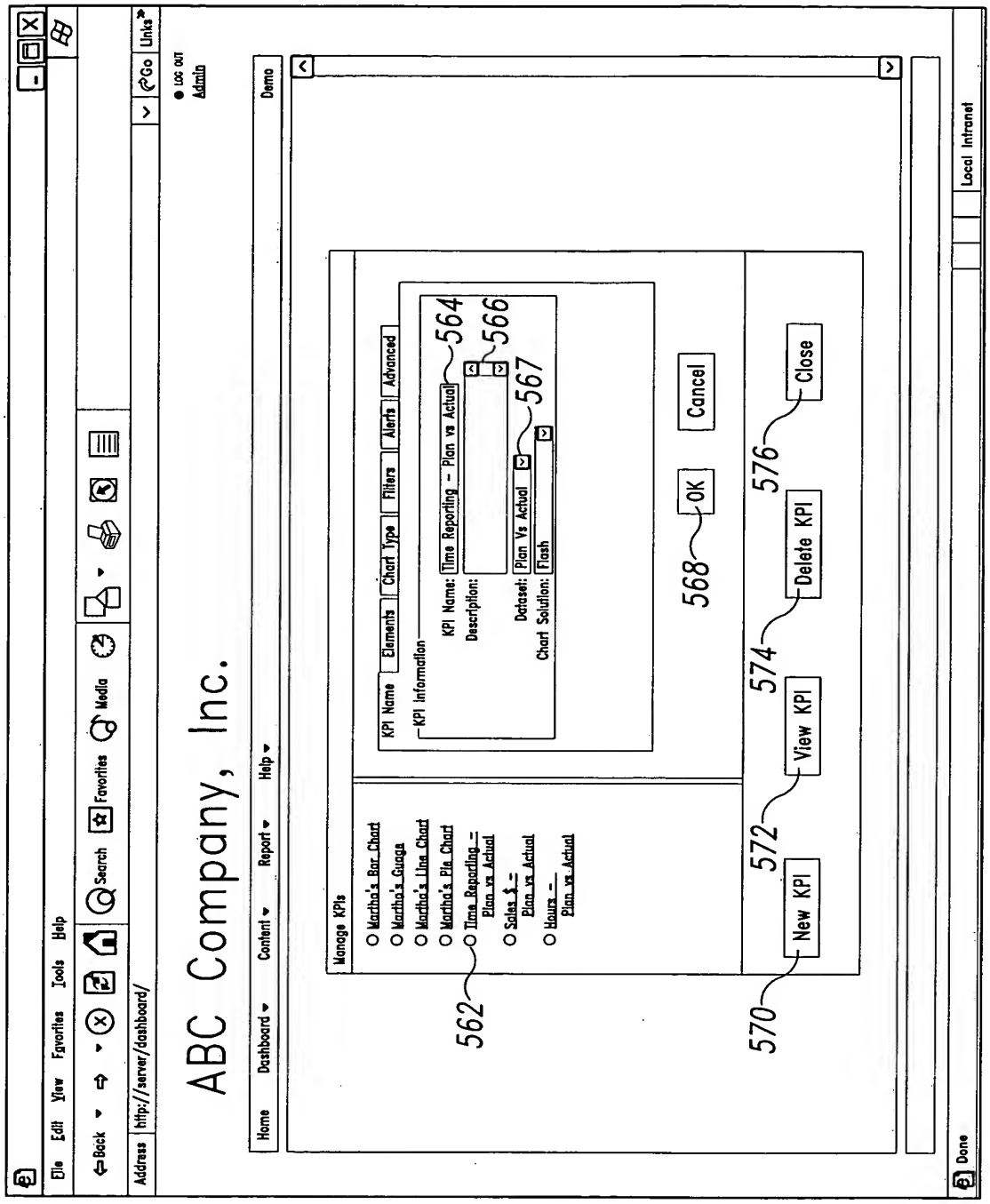
560
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://server/dashboard/
Links
Go
LOG OUT
Admin
ABC Company, Inc.
Home Dashboard Content Report Help
Demo
Manage KPIs
Martha's Bar Chart
Martha's Guage
Martha's Line Chart
Martha's Pie Chart
Time Reporting – Plan vs Actual
Sales $ – Plan vs Actual
Hours – Plan vs Actual
562
KPI Name Elements Chart Type Filters Alerts Advanced
KPI Information
KPI Name: Time Reporting – Plan vs Actual
Description:
Dataset: Plan Vs Actual
Chart Solution: Flash
564
566
567
568
OK
Cancel
570
New KPI
572
View KPI
574
Delete KPI
576
Close
Done
Local Intranet

Fig. 30

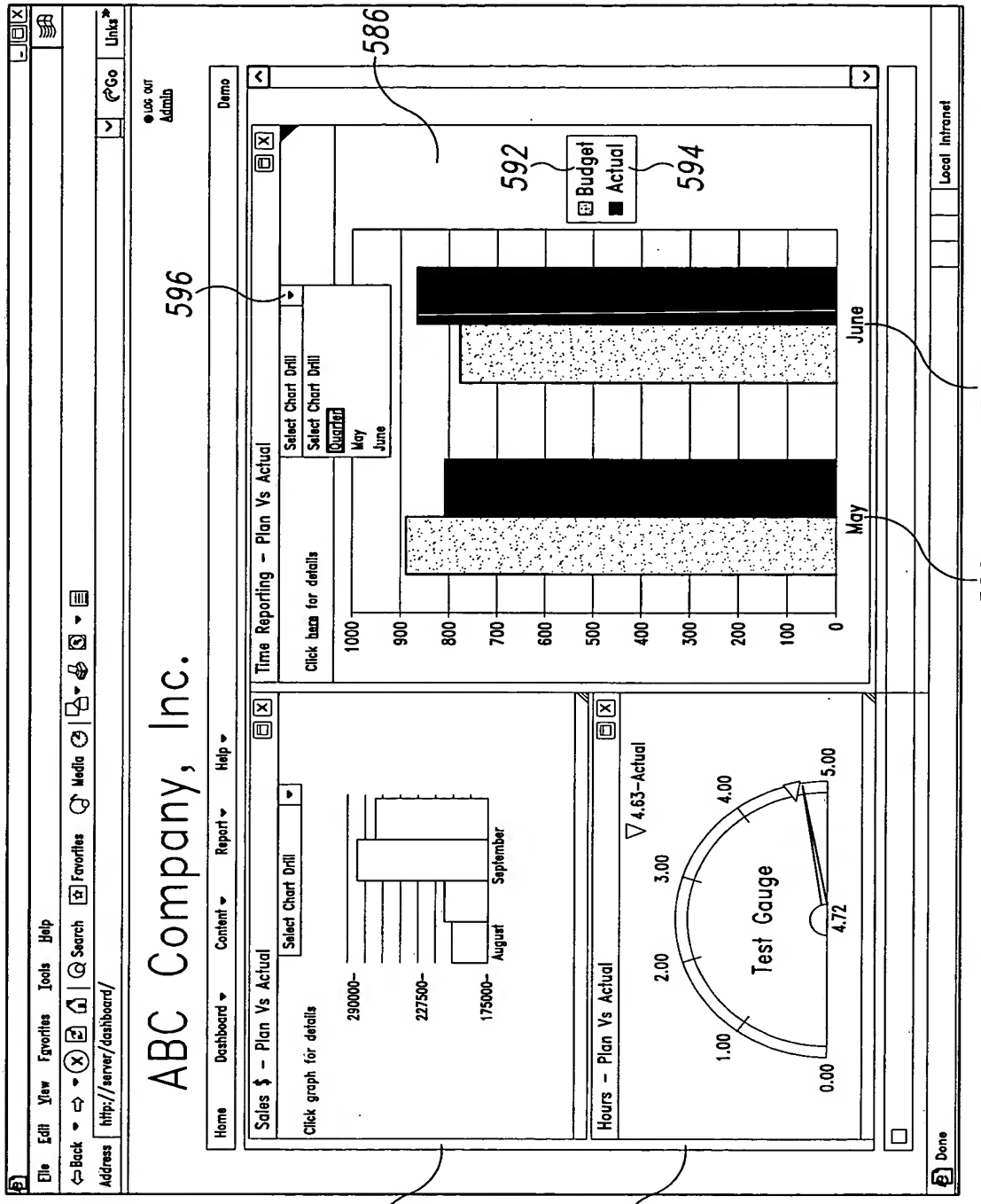
580
582
584
586
588
590
592
594
596
ABC Company, Inc.
Time Reporting - Plan Vs Actual
Sales $ - Plan Vs Actual
Hours - Plan Vs Actual
Test Gauge
Budget
Actual
June
May
August
September
Local Intranet

Fig. 31